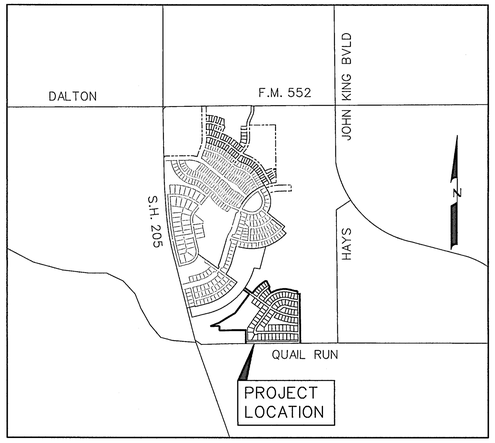
STONE CREEK PHASE VII
15047

DEVELOPMENT PLANS
FOR
STONE CREEK
PHASE VII
CITY OF ROCKWALL, TEXAS



PREPARED FOR

MERITAGE HOMES OF TEXAS, LLC.

909 HIDDEN RIDGE, SUITE 190, IRVING, TEXAS 75038

CORWIN ENGINEERING, INC. — CONSULTING ENGINEERS

200 W. BELMONT, SUITE E — TBPE FIRM #5951 — ALLEN, TEXAS 75013

INDEX

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.= 525.31

NOTE:

CITY OF ROCKWALL STANDARDS AND NCTCOG 3rd ADDITION STANDARDS SHALL BE USED FOR REFERENCE.

NO.	REVISIONS	DATE
3	CONSTRUCTION SET	4-4-16
2	CITY COMMENTS	3-30-16
1	CITY COMMENTS	1-11-16

APRIL 2016

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AMENDED PLAT
OF

STONE CREEK PHASE VII

TOTAL LOTS 80 TOTAL ACRES 37.827

OUT OF THE

S. KING SURVEY, ABSTRACT NO. 131

IN THE

CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

OWNER

MERITAGE HOMES OF TEXAS, LLC.
8840 CYPRESS WATERS BLVD., SUITE 100
DALLAS, TEXAS 75019

PREPARED BY

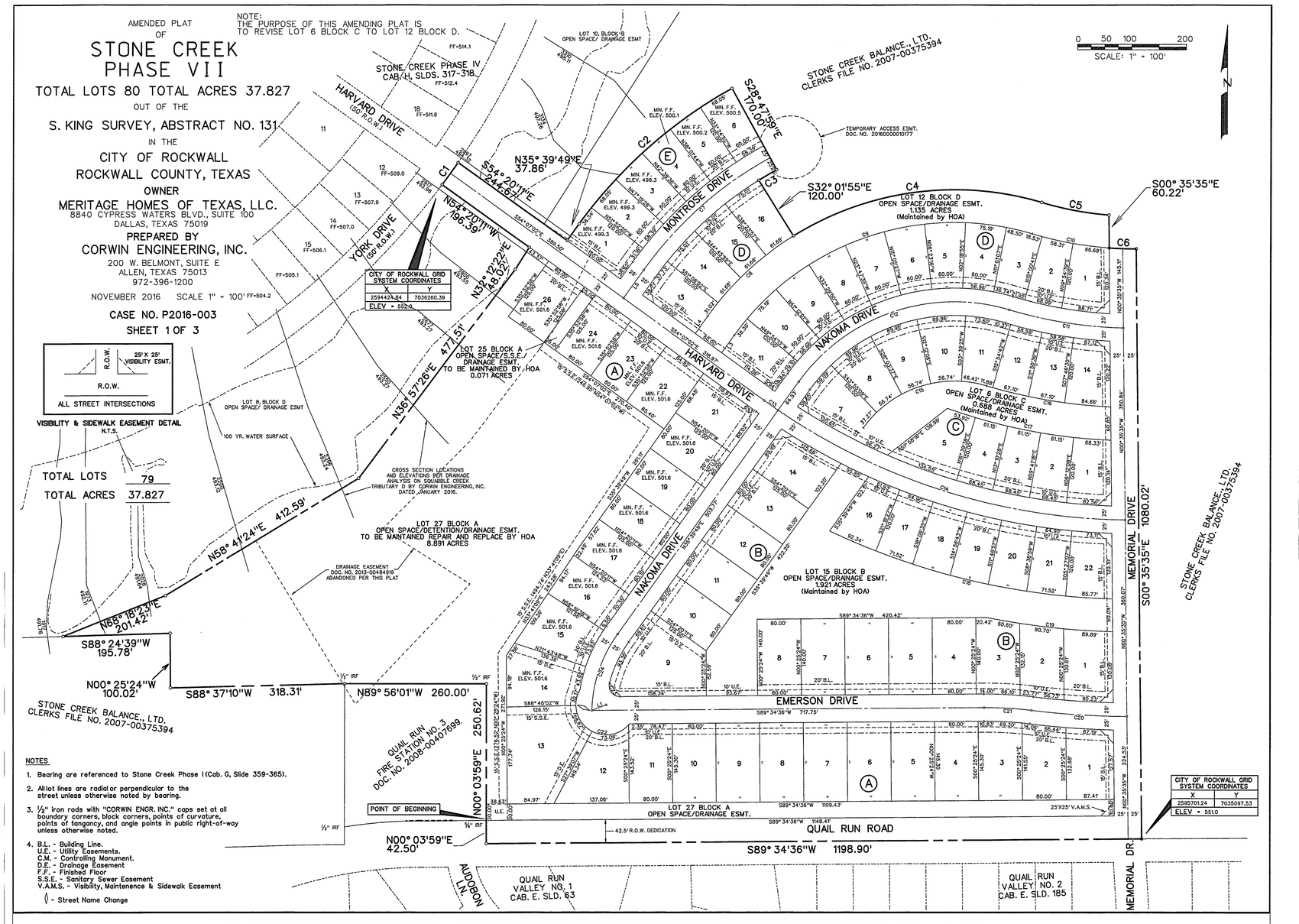
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200

NOVEMBER 2016 SCALE 1" = 100'

CASE NO. P2016-003

SHEET 1 OF 3

NOTE:
THE PURPOSE OF THIS AMENDING PLAT IS TO REVISE LOT 6 BLOCK C TO LOT 12 BLOCK D.



VISIBILITY & SIDEWALK EASEMENT DETAIL
N.T.S.

NOTES

1. Bearing are referenced to Stone Creek Phase I (Cab. G, Slide 359-365).
2. All lot lines are radial or perpendicular to the street unless otherwise noted by bearing.
3. ½" iron rods with "CORWIN ENGR. INC." caps set at all boundary corners, block corners, points of curvature, points of tangency, and angle points in public right-of-way unless otherwise noted.
4. B.L. - Building Line.
   U.E. - Utility Easements.
   C.M. - Controlling Monument.
   D.E. - Drainage Easement
   F.F. - Finished Floor
   S.S.E. - Sanitary Sewer Easement
   V.A.M.S. - Visibility, Maintenance & Sidewalk Easement
   ⟨ ⟩ - Street Name Change

OWNER'S CERTIFICATE

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:
STATE OF TEXAS
COUNTY OF ROCKWALL
We the undersigned owners of the land shown on this plat, and designated herein as the STONE CREEK PHASE VII, subdivision to the City of Rockwall, Texas, and whose name is subscribed hereto, hereby dedicate to the use of the public forever all streets, alleys, parks, water courses, drains, easements and public places thereon shown on the purpose and consideration therein expressed. We further certify that all other parties who have a mortgage or lien interest in the STONE CREEK PHASE VII, subdivision have been notified and signed this plat.

We understand and do hereby reserve the easement strips shown on this plat for the purposes stated and for the mutual use and accommodation of all utilities desiring to use or using same. We also understand the following:

1. No buildings shall be constructed or placed upon, over, or across the utility easements as described herein.

2. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other growths or improvements which in any way endanger or interfere with construction, maintenance or efficiency of their respective system on any of these easement strips; and any public utility shall at all times have the right of ingress or egress to, from and upon the said easement strips for purpose of construction, reconstruction, inspecting, patrolling, maintaining, and either adding to or removing all or part of their respective system without the necessity of, at any time, procuring the permission of anyone.

3. The City of Rockwall will not be responsible for any claims of any nature resulting from or occasioned by the establishment of grade of streets in the subdivision.

4. The developer and subdivision engineer shall bear total responsibility for storm drain improvements.

5. The developer shall be responsible for the necessary facilities to provide drainage patterns and drainage controls such that properties within the drainage area are not adversely affected by storm drainage from the development.

6. The detention drainage system is to be maintained, repaired and owend by the subdivision.

7. No house dwelling unit, or other structure shall be constructed on any lot in this addition by the owner or any other person until the developer and/or owner has complied with all requirements of the Subdivision Regulations of the City of Rockwall regarding improvements with respect to the entire block on the street or streets on which property abuts, including the actual installation of streets with the required base and paving, curb and gutter, water and sewer, drainage structures, storm structures, storm sewers, and alleys, all according to the specifications of the City of Rockwall; or

Until an escrow deposit, sufficient to pay for the cost of such improvements, as determined by the city's engineer and/or city administrator, computed on a private commercial rate basis, has been made with the city secretary, accompanied by an agreement signed by the developer and/or owner, authorizing the city to make such improvements at prevailing private commercial rates, or have the same made by a contractor and pay for the same out of the escrow deposit, should the developer and/or owner fail or refuse to install the required improvements within the time stated in such written agreement, but in no case shall the City be obligated to make such improvements itself. Such deposit may be used by the owner and/or developer as progress payments as the work progresses in making such improvements by making certified requisitions to the city secretary, supported by evidence of work done; or

Until the developer and/or owner files a corporate surety bond with the city secretary in a sum equal to the cost of such improvements for the designated area, guaranteeing the installation thereof within the time stated in the bond, which time shall be fixed by the city council of the City of Rockwall.

We further acknowledge that the dedications and/or exaction's made herein are proportional to the impact of the Subdivision upon the public services required in order that the development will comport with the present and future growth needs of the City; we, our successors and assigns hereby waive any claim, damage, or cause of action that we may have as a result of the dedication of exactions made herein.

MERITAGE HOMES OF TEXAS, LLC.
an Arizona limited liability company

Bobby Samuel
Vice President of Land Development

STATE OF TEXAS
COUNTY OF
Before me, the undersigned authority, on this day personally appeared BOBBY SAMUEL, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purpose and consideration therein stated. Given upon my hand and seal of office this_____day of_____, 2016.

Notary Public in and for the State of Texas My Commission Expires: _____

NOTE: It shall be the policy of the City of Rockwall to withhold issuing building permits until all streets, water, sewer and storm drainage systems have been accepted by the City. The approval of a plat by the City does not constitute any representation, assurance or guarantee that any building within such plat shall be approved, authorized or permit therefore issued, nor shall such approval constitute any representation, assurance or guarantee by the City of the adequacy and availability for water for personal use and fire protection within such plat, as required under Ordinance 83-54.

_____ _____
Planning & Zoning Commission Date

APPROVED

I hereby certify that the above and foregoing plat of an addition to the City of Rockwall, Texas, was approved by the City Council of the City of Rockwall on the_____day of_____, 2016.

This approval shall be invalid unless the approved plat for such addition is recorded in the office of the Count Clerk of Rockwall, County, Texas, within one hundred eighty (180) days from said date of final approval.

WITNESS OUR HANDS, this_____day of_____, 2016.

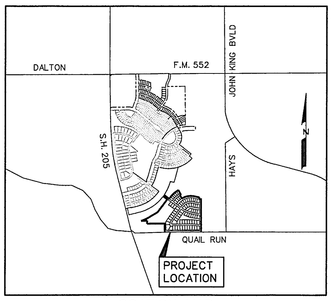
_____ _____ _____
Mayor, City of Rockwall City Secretary City Engineer

LINE TABLE

LINE NO.	BEARING	DISTANCE
1.	N 68°33'15" E	27.88'
2.	N 35°39'49" E	26.67'
3.	N 35°39'49" E	39.40'
4.	N 35°39'49" E	39.17'
5.	N 35°39'49" E	63.61'

CURVE TABLE

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD	BEARING
1.	02°04'34"	1380.00'	50.00'	25.00'	50.00'	N35°47'17"E
2.	25°32'12"	845.00'	376.62'	191.49'	373.51'	N48°25'55"E
3.	03°13'55"	675.00'	38.08'	19.40'	38.07'	S59°35'03"W
4.	48°39'50"	555.00'	471.39'	250.97'	457.35'	N82°18'00"E
5.	12°04'57"	595.00'	125.47'	62.97'	125.24'	S79°24'33"E
6.	04°22'44"	655.00'	50.06'	25.04'	50.05'	S88°06'43"E
7.	25°32'12"	700.00'	311.99'	158.63'	309.41'	N48°25'55"E
8.	22°18'16"	555.00'	216.06'	109.41'	214.69'	S46°48'57"W
9.	70°58'07"	495.00'	613.12'	352.88'	574.67'	N71°08'52"E
10.	12°33'17"	655.00'	143.52'	72.05'	143.24'	S79°38'43"E
11.	15°11'44"	800.00'	212.17'	106.71'	211.55'	N80°57'56"W
12.	70°58'07"	350.00'	433.52'	249.51'	406.34'	S71°08'52"W
13.	01°32'47"	1150.00'	31.04'	15.52'	31.04'	S54°53'25"E
14.	33°38'31"	1150.00'	675.23'	347.66'	655.58'	S72°29'04"E
15.	70°58'07"	205.00'	253.92'	146.14'	238.00'	N71°08'52"E
16.	13°59'23"	945.00'	230.74'	115.95'	230.17'	S80°21'46"E
17.	17°25'40"	1005.00'	305.70'	154.04'	304.52'	N78°58'45"W
18.	23°42'10"	1295.00'	535.62'	271.75'	531.92'	N76°29'30"W
19.	09°46'32"	1355.00'	231.18'	115.87'	230.90'	N83°33'17"W
20.	06°39'07"	1510.00'	175.31'	87.75'	175.21'	N86°17'11"W
21.	07°27'46"	665.00'	86.62'	43.37'	86.56'	N86°41'31"W
22.	171°06'01"	55.00'	164.24'	-----	109.67'	S55°21'07"E
23.	104°51'33"	20.00'	36.60'	26.00'	31.70'	S37°59'38"E
24.	34°21'05"	250.00'	149.89'	77.27'	147.65'	S18°29'16"W



LOCATION MAP
N.T.S.

AMENDED PLAT
OF

STONE CREEK PHASE VII

TOTAL LOTS 80 TOTAL ACRES 37.827

OUT OF THE

S. KING SURVEY, ABSTRACT NO. 131

IN THE

CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

OWNER

MERITAGE HOMES OF TEXAS, LLC.
8840 CYPRESS WATERS BLVD., SUITE 100
DALLAS, TEXAS 75019

PREPARED BY

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200

NOVEMBER 2016

CASE NO. P2016-003 SHEET 2 OF 3

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LEGAL DESCRIPTION

WHEREAS, MERITAGE HOMES OF TEXAS, LLC., is the owner of a tract of land situated in the S. King Survey, Abstract No. 131 in the City of Rockwall, Rockwall County, Texas, being all of a 37.782 acre tract, Clerks File No. 20150000013037 in the Deed Records of Rockwall County, Texas, and being more particularly described as follows:

BEGINNING, at a ⅝ inch iron rod found at the southeast corner of the Quail Run Fire Station No. 3, as described in Doc. No. 2008-00407699 in said Deed Records;

THENCE, North 00° 03'59" East, along the east line of said Quail Run Fire Station No. 3, for a distance of 250.62 feet, to a ½ inch iron rod found with a yellow cap stamped with Corwin Eng. Inc., being at the northeast corner of said Quail Run Fire Station No. 3;

THENCE, North 89° 56'01" West, along the north line of said Quail Run Fire Station No. 3, for a distance 260.00 feet, to a ½ inch iron rod found with a yellow cap stamped with Corwin Eng. Inc., being at the northwest corner of said Quail Run Fire Station No. 3 Tract;

THENCE, South 88° 37'10" West, for a distance of 318.31 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, North 00° 25'24' West, for a distance of 100.02 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, South 88° 24'39" West, for a distance of 195.78 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., being in the south line of Stone Creek Phase IV, being an addition to the City of Rockwall as described in Cabinet H, Pages 317 - 318, in the Plat Records of Rockwall County, Texas;

THENCE, North 68° 18'23" East, with the south line of said Stone Creek Phase IV, for a distance of 201.42 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, North 58° 41'24" East, continuing with said south line for a distance of 412.59 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, North 36° 57'26" East, continuing with said south line for a distance, of 477.51 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, North 32° 12'22" East, continuing with said south line for a distance of 48.02 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, North 54° 20'11" West, continuing with said south line for a distance of 196.39 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., being in the southeast right-of-way line of York Drive, and being a point on a curve to the left having a radius of 1380.00 feet, a tangent of 25.00 feet and a central angle of 02° 04'34";

THENCE, with said curve to the left and said York Drive right-of-way, for an arc distance of 50.00 feet, (Chord Bearing N 35° 47'17" E - 50.00 feet) to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, South 54° 20'11" East, departing said York Drive right-of-way and along the south line of said Stone Creek Phase IV, at 193.26 feet passing a point in the south line of said Stone Creek Phase IV, and continuing for a total distance of 244.67 feet, to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, North 35° 39'49" East, for a distance of 37.86 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., at the point of curvature of a curve to the right having a radius of 845.00 feet, a tangent of 191.49 feet and a central angle of 25° 32'12";

THENCE, with said curve to the right for an arc distance of 376.62 feet, (Chord Bearing N 48° 25'55" E - 373.51 feet), to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.,

THENCE, South 28° 47'59" East, for a distance of 170.00 feet to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., being a point on a curve to the left having a radius of 675.00 feet, a tangent of 19.40 feet and a central angle of 03° 13'55",

THENCE, with said curve to the left for an arc distance of 38.08 feet, (Chord Bearing S 59° 35'03" W - 38.07 feet), to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, South 32° 01'55" East, for a distance of 120.00 feet, to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., being on a curve to the right having a radius of 555.00 feet, a tangent of 250.97 feet and a central angle of 48° 39'50";

THENCE, with said curve to the right for an arc distance of 471.39 feet, (Chord Bearing N 82° 18'00" E - 457.35 feet), a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., being at the point of reverse curvature of a curve to left having a radius of 595.00 feet, a tangent of 62.97 feet and a central angle of 12° 04'57";

THENCE, with said curve to the left for an arc distance of 125.47 feet, (Chord Bearing S79° 24'33" E - 125.24 feet), to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, South 00° 35'35" East, for a distance of 60.22 feet, to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc., being on a curve to the left having a radius of 655.00 feet, a tangent of 25.04 feet and a central angle of 04° 22'44";

THENCE, with said curve to the left for an arc distance of 50.06 feet, (Chord Bearing S 88° 06'43" East - 50.05 feet), to a ½ inch iron rod set with a yellow cap stamped with Corwin Eng. Inc.;

THENCE, South 00° 35'35" East, for a distance of 1080.02 feet, to a ½ inch iron rod set with a yellow cap stamped "Corwin Eng. Inc.", being in the south line of said Stone Creek Balance tract and being in the north line Quail Run Valley No. 2, an addition to the City of Rockwall, as described in Cab. E, Pg. 185, in said Plat Records;

THENCE, South 89° 34'36" West, continuing along said north and south lines at 826.67 feet, passing the northwest corner of said Quail Valley No. 2 and being the northeast corner of Quail Run Valley No. 1, an addition to the City of Rockwall, Texas, as recorded in Cab. E, Slide 63 in said Plat Records and continuing for a total distance of 1198.90 feet, to a ½ inch iron rod set with a yellow cap stamped Corwin Eng. Inc.;

THENCE, North 00° 03'59" East, departing the north line of said Quail Run Valley No. 1, for a distance of 42.50 feet to the POINT OF BEGINNING and containing 37.827 acres of land.

SURVEYOR CERTIFICATE

I, WARREN L. CORWIN, do hereby certify that the plat shown hereon accurately represents the results of an on-the-ground survey made under my direction and supervision and all corners are as shown thereon and there are no encroachments, conflicts, protrusions or visible utilities on the ground except as shown and said plat has been prepared in accordance with the platting rules and regulations of the City Plan Commission of the City of Rockwall, Texas.

DATED the this_____day of_____, 2016.

_____
WARREN L. CORWIN
R.P.L.S. No. 4621

THE STATE OF TEXAS
COUNTY OF COLLIN

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared WARREN L. CORWIN, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same in the capacity therein stated and for the purposes and considerations therein expressed.

WITNESS MY HAND AND SEAL OF OFFICE, this the_____day of_____, 2016.

_____
Notary Public in and for the State of Texas

AMENDED PLAT
OF
STONE CREEK PHASE VII
TOTAL LOTS 80 TOTAL ACRES 37.827
OUT OF THE
S. KING SURVEY, ABSTRACT NO. 131
IN THE
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200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200

NOVEMBER 2016

CASE NO. P2016-003 SHEET 3 OF 3

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RUNOFF COMPUTATIONS

Area #	Area (sf)	Area (acres)	Runoff Coefficient	CA	Tc (min)	I(100) (in/hr)	Q(100) (cfs)	Drains To:
1	107840	2.48	0.50	1.24	10	9.80	12.1	Inlet 1
2	31904	0.73	0.50	0.37	10	9.80	3.6	Inlet 2
3	34447	0.79	0.50	0.40	10	9.80	3.9	Inlet 3
4	99539	2.29	0.50	1.14	10	9.80	11.2	Inlet 4
5	14848	0.34	0.50	0.17	10	9.80	1.7	Inlet 5
6	107750	2.47	0.50	1.24	10	9.80	12.1	Inlet 6
7	33914	0.78	0.50	0.39	10	9.80	3.8	Inlet 7
8	31321	0.72	0.50	0.36	10	9.80	3.5	Inlet 8
9	182130	4.18	0.50	2.09	10	9.80	20.5	Inlet 9
10	34314	0.79	0.50	0.39	10	9.80	3.9	Inlet 10
11	24396	0.56	0.50	0.28	10	9.80	2.7	Inlet 11
12	32953	0.76	0.50	0.38	10	9.80	3.7	Inlet 12
13	39744	0.91	0.50	0.46	10	9.80	4.5	Inlet 13
14	77900	1.79	0.50	0.89	10	9.80	8.8	Inlet 14
15	69881	1.60	0.50	0.80	10	9.80	7.9	Inlet 15
16	95536	2.19	0.50	1.10	10	9.80	10.7	Inlet 16
17	48027	1.10	0.50	0.55	10	9.80	5.4	Inlet 17
18	18897	0.43	0.50	0.22	10	9.80	2.1	Inlet 18
19	62388	1.43	0.50	0.72	10	9.80	7.0	Inlet 19
20	47277	1.09	0.50	0.54	10	9.80	5.3	Inlet 20
21	78968	1.81	0.50	0.91	10	9.80	8.9	Inlet 21
22	132752	3.05	0.50	1.52	10	9.80	14.9	Inlet 22
23	104576	2.40	0.50	1.20	10	9.80	11.8	Inlet 23
24	74017	1.70	0.50	0.85	10	9.80	8.3	Inlet 24
25	46842	1.08	0.90	0.97	10	9.80	9.5	Inlet 25
25A	52152	1.20	0.50	0.60	10	9.80	5.9	Inlet 25
26	40189	0.92	0.50	0.46	10	9.80	4.5	Inlet 26
27	55782	1.28	0.50	0.64	10	9.80	6.3	Inlet 27
28	244439	5.61	0.50	2.81	10	9.80	27.5	Lat D9a
29	11443	0.26	0.90	0.24	10	9.80	2.3	Inlet 29
29A	4508	0.10	0.50	0.05	10	9.80	0.5	Inlet 29
30	9063	0.21	0.90	0.19	10	9.80	1.8	Inlet 30
30A	8719	0.20	0.50	0.10	10	9.80	1.0	Inlet 30
31	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 31
31A	8707	0.20	0.50	0.10	10	9.80	1.0	Inlet 31
32	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 32
32A	8718	0.20	0.50	0.10	10	9.80	1.0	Inlet 32
33	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 33
33A	8718	0.20	0.50	0.10	10	9.80	1.0	Inlet 33
34	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 34
34A	8718	0.20	0.50	0.10	10	9.80	1.0	Inlet 34
35	11600	0.27	0.90	0.24	10	9.80	2.3	Inlet 35
35A	11623	0.27	0.50	0.13	10	9.80	1.3	Inlet 35
36	7458	0.17	0.90	0.15	10	9.80	1.5	Inlet 36
36A	5882	0.14	0.50	0.07	10	9.80	0.7	Inlet 36
37	41800	0.96	0.50	0.48	10	9.80	4.7	Inlet 37
38	51851	1.19	0.90	1.07	10	9.80	10.5	Inlet 38
39	39246	0.90	0.50	0.45	10	9.80	4.4	To Creek
40	795029	18.25	0.50	9.13	10	9.80	89.4	Line D4
41	322578	7.41	0.50	3.70	10	9.80	36.3	To Pond
INT 7	30455	0.70	0.50	0.35	10	9.80	3.4	Interim to Inlet 7
INT 8	12800	0.29	0.50	0.15	10	9.80	1.4	Interim to Inlet 8
INT 9	304352	6.99	0.35	2.45	20	8.30	20.3	Interim to Inlet 9
INT 17	40090	0.92	0.50	0.46	10	9.80	4.5	Interim to Inlet 17
INT 18	13035	0.30	0.50	0.15	10	9.80	1.5	Interim to Inlet 18
INT 25	259779	5.96	0.35	2.09	20	8.30	17.3	Interim to Inlet 25
INT 26	14263	0.33	0.50	0.16	10	9.80	1.6	Interim to Inlet 26
INT 28	370006	8.49	0.35	2.97	20	8.30	24.7	Interim to Inlet 28

LEGEND

- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL
- EXIST. STORM SEWER
- DRAINAGE AREA DIVIDE
- FLOW ARROW
- DRAINAGE AREA NO. (AC. | Q)

0 50 100 200
SCALE: 1" = 100'

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

PROPOSED ULTIMATE CONDITIONS
DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=100'	3 OF 31

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STORM SEWER CALCULATIONS

Upstream Station	Downstream Station	Distance (ft)	AREA NO.	Total Area (Acres)	Picked Up (Acres)	C	CA	Accumulated CA	Tc (Min)	Design Storm (Years)	I (in/hr)	Q (CFS)	S (ft/ft)	Pipe Size (in)	Partial Flow?	Velocity (fps)	Flow Time (Min)	Velocity Head (ft)	Junction Type	K	Time at D/S (Min)	Minor Losses (ft)	Hydraulic Grade Upstream	Hydraulic Grade Downstream	Proposed Grade
Line D1																									
5+74.20	3+46.00	228.20	D2,D3	43.17	43.17	0.50	21.58	21.58	13.17	100	9.32	201.3	0.0036	66	Yes	11.6	0.33	2.09	MH	1.00	13.50	2.09		500.52	
3+46.00																							499.70		
Line D2																									
1+77.26	0+00.00	177.26	D2A,D2B	3.80	4.02	0.50	2.01	2.01	10.00	100	9.80	19.7	0.0076	24	No	6.3	0.47	0.61	MH	1.00	10.47	0.61		503.34	502.73
0+00.00																11.6	0.00	2.09		1.00	0.00	1.48	502.00	500.52	
Lat D2a																									
0+17.90	0+00.00	17.90	15	1.60	1.60	0.50	0.80	0.80	10.00	100	9.80	7.9	0.0012	24	No	2.5	0.12	0.10	Inlet	1.25	10.12	0.12	504.00	503.88	505.32
0+00.00																6.3	0.00	0.61		1.00	0.00	0.51	503.86	503.34	
Lat D2b																									
0+17.90	0+00.00	17.90	16	2.19	2.42	0.50	1.21	1.21	10.00	100	9.80	11.9	0.0027	24	No	3.8	0.08	0.22	Inlet	1.25	10.08	0.28	504.06	503.78	505.32
0+00.00																6.3	0.00	0.61		1.00	0.00	0.39	503.73	503.34	
Line D3																									
11+22.57	10+87.57	35.00	9	4.18	4.18	0.50	2.09	2.09	10.00	100	9.80	20.5	0.0025	30	No	4.2	0.14	0.27	Inlet	1.25	10.14	0.34	527.49	527.15	527.78
10+87.57	10+28.01	59.56	D5	10.60	10.60	0.50	5.30	7.39	11.60	100	9.56	70.6	0.0073	39	No	8.5	0.12	1.13	MH	1.00	11.71	0.86	527.06	526.21	529.60
10+28.01	10+19.73	8.28	D3A	0.56	0.56	0.50	0.28	7.67	11.71	100	9.54	73.2	0.0079	39	No	8.8	0.02	1.21	60° Wye	0.50	11.73	0.65	525.77	525.13	525.91
10+19.73	3+99.54	620.19	D3B	0.79	0.79	0.50	0.39	8.06	11.73	100	9.54	76.9	0.0087	39	No	9.3	1.11	1.33	60° Wye	0.50	12.85	0.73	525.06	524.33	530.64
3+99.54	2+12.20	187.34	D3C	1.67	1.44	0.50	0.72	8.78	12.85	100	9.37	82.3	0.0099	39	Yes	17.3	0.18	4.65	60° Wye	0.50	13.03	3.98	518.95	516.11	529.94
2+12.20	0+62.33	149.87	D3E	1.79	1.79	0.50	0.89	9.68	13.03	100	9.35	90.5	0.0120	39	Yes	17.6	0.14	4.81	60° Wye	0.50	13.17	2.49	514.24	511.76	
0+62.33	0+00.00	62.33	D4	19.79	19.79	0.50	9.89	19.57	13.17	100	9.32	182.5	0.0161	48	No	14.5	0.07	3.28	MH	1.00	13.24	0.00	509.96	507.01	
0+00.00																11.6	0.00	2.09		1.00	0.00	0.00	506.00	500.52	
Lat D3a																									
0+17.86	0+00.00	17.86	11	0.56	0.56	0.50	0.28	0.28	10.00	100	9.80	2.7	0.0007	18		1.6	0.19	0.04	Inlet	1.25	10.19	0.05	526.36	526.31	529.91
0+00.00																8.8	0.00	1.21		1.00	0.00	1.17	526.30	525.13	
Lat D3b																									
0+17.94	0+00.00	17.94	10	0.79	0.79	0.50	0.39	0.39	10.00	100	9.80	3.9	0.0014	18		2.2	0.14	0.07	Inlet	1.25	10.14	0.09	525.71	525.62	530.20
0+00.00																9.3	0.00	1.33		1.00	0.00	1.26	525.59	524.33	
Lat D3c																									
0+60.85	0+25.62	35.23	13	0.91	0.91	0.50	0.46	0.46	10.00	100	9.80	4.5	0.0018	18		2.5	0.23	0.10	Inlet	1.25	10.23	0.12	521.01	520.88	530.19
0+25.62	0+00.00	25.62	D3D	0.76	0.53	0.50	0.27	0.72	10.23	100	9.77	7.0	0.0045	18		4.0	0.11	0.25	60° Wye	0.50	10.34	0.20	520.82	520.62	
0+00.00																17.3	0.00	4.65		1.00	0.00	4.40	520.51	516.11	
Lat D3d																									
0+32.82	0+00.00	32.82	12	0.76	0.53	0.50	0.27	0.27	10.00	100	9.80	2.6	0.0006	18		1.5	0.37	0.03	Inlet	1.25	10.37	0.04	520.90	520.86	529.94
0+00.00																4.0	0.00	0.25		1.00	0.00	0.21	520.84	520.62	
Lat D3e																									
0+34.34	0+10.00	24.34	14	1.79	1.79	0.50	0.89	0.89	10.00	100	9.80	8.8	0.0070	18		5.0	0.08	0.38	Inlet	1.25	10.08	0.48	516.90	516.43	521.00
0+10.00	0+00.00	10.00	Bend	0.00	0.00	0.50	0.00	0.89	10.08	100	9.79	8.8	0.0069	18		5.0	0.03	0.38	30° Bend	0.45	10.12	0.00	516.26	516.26	
0+00.00																17.6	0.00	4.81		1.00	0.00	4.43	516.19	511.76	
Line D4																									
4+95.00	2+15.28	279.72	32	18.25	18.25	0.50	9.13	9.13	10.00	100	9.80	89.4	0.0039	48	Yes	10.5	0.44	1.71	Headwall	1.00	10.44	1.71	514.03	512.32	
2+15.28	1+90.81	24.47	D4D	0.43	0.43	0.50	0.22	9.34	10.44	100	9.73	90.9	0.0040	48	Yes	10.5	0.04	1.71	60° Wye	0.50	10.48	0.86	511.24	510.38	
1+90.81	0+00.00	190.81	D4C	1.10	1.10	0.50	0.55	9.89	10.48	100	9.73	96.2	0.0045	48	Yes	12.3	0.26	2.35	60° Wye	0.50	10.74	1.49	510.28	508.79	
0+00.00																14.5	0.00	3.28		1.00	0.00	0.93	507.93	507.01	
Lat D4c																									
0+17.97	0+00.00	17.97	17	1.10	1.10	0.50	0.55	0.55	10.00	100	9.80	5.4	0.0026	18		3.1	0.10	0.15	Inlet	1.25	10.10	0.18	512.18	511.99	514.99
0+00.00																10.5	0.00	1.71		1.00	0.00	1.57	511.95	510.38	
Lat D4d																									
0+17.83	0+00.00	17.83	18	0.43	0.43	0.50	0.22	0.22	10.00	100	9.80	2.1	0.0004	18		1.2	0.25	0.02	Inlet	1.25	10.25	0.03	511.15	511.12	515.16
0+00.00																12.3	0.00	2.35		1.00	0.00	2.33	511.12	508.79	0.00
Line D5																									
5+38.38	5+05.38	33.00	1	2.48	2.48	0.50	1.24	1.24	10.00	100	9.80	12.1	0.0029	24	No	3.9	0.14	0.23		0.50	10.14	0.12		532.61	
5+05.38	3+41.20	164.18	MH	0.00	0.00	0.50	0.00	1.24	10.14	100	9.78	12.1	0.0029	24	No	3.9	0.71	0.23	MH	1.00	10.85	0.23	532.51	532.28	
3+41.20	1+49.75	191.45	D5A,D5C	3.81	3.43	0.50	1.71	2.95	10.85	100	9.67	28.6	0.0048	30	No	5.8	0.55	0.53	60° Wye	0.50	11.40	0.41	531.81	531.40	
1+49.75	1+43.75	6.00	D5D	2.47	2.47	0.50	1.24	4.19	11.40	100	9.59	40.2	0.0096	30	No	8.2	0.01	1.04	60° Wye	0.50	11.41	0.78	530.47	529.70	
1+43.75	0+49.46	94.29	D5E	0.34	0.34	0.50	0.17	4.36	11.41	100	9.59	41.8	0.0104	30	No	8.5	0.18	1.13	60° Wye	0.50	11.60	0.61	529.64	529.03	
0+49.46	0+00.00	49.46	D5F,D5G	1.50	1.88	0.50	0.94	5.30	11.60	100	9.56	50.7	0.0152	30	No	10.3	0.08	1.65	60° Wye	0.50	11.68	1.09	528.05	526.96	
0+00.00																8.5	0.00	1.13		1.00	0.00	0.00	526.21	526.21	
Lat D5a																									
0+60.69	0+23.80	36.89	2	0.73	0.57	0.50	0.29	0.29	10.00	100	9.80	2.8	0.0007	18		1.6	0.39	0.04	Inlet	1.25	10.39	0.05	532.05	532.00	533.61
0+23.80	0+00.00	23.80	D5B	0.79	0.57	0.50	0.29	0.57	10.39	100	9.74	5.6	0.0028	18		3.2	0.13	0.15	60° Wye	0.50	10.51	0.13	531.97	531.84	
0+00.00																5.8	0.00	0.53		1.00	0.00	0.37	531.77	531.40	
Lat D5b																									
0+32.27	0+00.00	32.27	3	0.79	0.57	0.50	0.29	0.29	10.00	100	9.80	2.8	0.0007	18		1.6	0.34	0.04	Inlet	1.25	10.34	0.05	532.03	531.98	533.50
0+00.00																3.2	0.00	0.15		1.00	0.00	0.12	531.95	531.84	
Lat D5c																									
0+36.66	0+00.00	36.66	4	2.29	2.29	0.50	1.14	1.14	10.00	100	9.80	11.2	0.0007	30		2.3	0.27	0.08	Inlet	1.25	10.27	0.10	531.97	531.87	
0+00.00																5.8	0.00	0.53		1.00	0.00	0.44	531.85	531.40	
Lat D5d																									
0+36.34	0+10.00	26.34	6	2.47	2.47	0.50	1.24	1.24	10.00	100	9.80	12.1	0.0133	18		6.9	0.06	0.73	Inlet	1.25	10.06	0.91	531.40	530.49	532.90
0+10.00	0+00.00	10.00	Bend	0.00	0.00	0.50	0.00	1.24	10.06	100	9.79	12.1	0.0133	18		6.9	0.02	0.73	30° Bend	0.45	10.09	0.00	530.14	530.14	
0+10.00																8.2	0.00	1.04		1.00	0.00	0.31	530.01	529.70	
Lat D5e																									
0+37.95	0+22.00	15.95	5	0.34	0.34	0.50	0.17	0.17	10.00	100	9.80	1.7	0.0003	18		0.9	0.28	0.01	Inlet	1.25	10.28	0.02	530.17	530.15	532.90
0+22.00	0+00.00	22.00	Bend	0.00	0.00	0.50	0.00	0.17	10.28	100	9.76	1.7	0.0003	18		0.9	0.39	0.01	30° Bend	0.45	10.67	0.00	530.15	530.15	
0+00.00																8.5	0.00	1.13		1.00	0.00	1.11	530.15	529.03	
Lat D5f																									
0+17.90	0+00.00	17.90	8	0.72	0.72	0.50	0.36	0.36	10.00	100	9.80	3.5	0.0011	18		2.0	0.15	0.06	Inlet	1.25	10.15	0.08	528.65	528.58	530.84
0+00.00																10.3	0.00	1.65		1.00	0.00	1.59	528.56	526.96	
Lat D5g																									
0+17.90	0+00.00	17.90	7	0.78	1.16	0.50	0.58	0.58	10.00	100	9.80	5.7	0.0029	18		3.2	0.09	0.16	Inlet	1.25	10.09	0.20	528.71	528.51	530.84
0+00.00																10.3	0.00	1.65		1.00	0.00	1.49	528.46	526.96	
Line D6																									
8+58.27	8+39.44	18.83	21	1.81	1.81	0.50	0.91	0.91	10.00	100	9.80	8.9	0.0072	18	No	5.0	0.06	0.39	Inlet	1.25	10.06	0.49	520.21	519.72	522.00
8+39.44	6+93.97	145.47	Bend	0.00	0.00	0.50	0.00	0.91	10.06	100	9.79	8.9	0.0071	18	No	5.0	0.48	0.39	45° Bend	0.50	10.55	0.20	519.58	519.39	
6+93.97	6+79.83	14.14	Bend	0.00	0.00	0.50	0.00	0.91	10.55	100	9.72	8.8	0.0070	18	No	5.0	0.05	0.39	45° Bend	0.50	10.59	0.19	518.35	518.15	
6+79.83	6+18.07	61.76	Bend	0.00	0.00	0.50	0.00	0.91	10.59	100	9.71	8.8	0.0070	18	No	5.0	0.21	0.39	45° Bend	0.50	10.80	0.19	518.06	517.86	
6+18.07	5+44.23	73.84	D6A	1.43	1.43	0.50	0.71	1.62	10.80	100	9.68	15.7	0.0098	21	No	6.5	0.19	0.66	60° Wye	0.50	10.99	0.47	517.43	516.96	
5+44.23	5+22.35	21.88	MH	0.00	0.00	0.50	0.00	1.62	10.99	100	9.65	15.6	0.0097	21	No	6.5	0.06	0.66	MH	1.00	11.04	0.66	516.24	515.58	
5+22.35	3+60.00	162.35	D6B	1.09	1.09	0.50	0.54	2.16	11.04	100	9.64	20.9	0.0085	24	No	6.6	0.41	0.68	60° Wye	0.50	11.45	0.36	515.37	515.01	
3+60.00	2+39.37	120.63	MH?	0.00	0.00	0.50	0.00	2.16	11.45	100	9.58	20.7	0.0084	24	No	6.6	0.30	0.68		1.00	11.76	0.00	513.63	501.11	
2+39.18																							500.10		
Lat D6a																									
0+18.10	0+00.00	18.10	19	1.43	1.43	0.50	0.71	0.71	10.00	100	9.80	7.0	0.0044	18		4.0	0.08	0.24	Inlet	1.25	10.08	0.30	517.76	517.46	519.14
0+00.00																6.5	0.00	0.66		1.00	0.00	0.42	517.38	516.96	
Lat D6b																									
0+09.72	0+00.00	9.72	20	1.09	1.09	0.50	0.54	0.54	10.00	100	9.80	5.3	0.0026	18		3.0	0.05	0.14	Inlet	1.25	10.05	0.18	515.76	515.58	518.44
0+00.00																6.6	0.00	0.68		1.00	0.00	0.54	515.55	515.01	

Upstream Station	Downstream Station	Distance (ft)	AREA NO.	Total Area (Acres)	Picked Up (Acres)	C	CA	Accumulated CA	Tc (Min)	Design Storm (Years)	I (in/hr)	Q (CFS)	S (ft/ft)	Pipe Size (in)	Partial Flow?	Velocity (fps)	Flow Time (Min)	Velocity Head (ft)	Junction Type	K	Time at D/S (Min)	Minor Losses (ft)	Hydraulic Grade Upstream	Hydraulic Grade Downstream	Proposed Grade
Line D7																									
13+12.93	12+81.73	31.20	25,25A	2.27	2.27	0.69	1.57	1.57	10.00	100	9.80	15.4	0.0046	24	No	4.9	0.11	0.37	Inlet	1.25	10.11	0.46	518.16	517.69	518.27
12+81.73	12+26.48	55.25	Bend	0.00	0.00	0.50	0.00	1.57	10.11	100	9.78	15.3	0.0046	24	No	4.9	0.19	0.37	45° Bend	0.50	10.30	0.18	517.55	517.37	
12+26.48	11+05.00	121.48	D9	9.51	9.51	0.50	4.76	6.32	10.30	100	9.76	61.7	0.0056	39	No	7.4	0.27	0.86	MH	1.00	10.57	0.86	517.11	516.25	520.02
11+05.00	9+80.00	125.00	D7A	0.37	0.37	0.79	0.29	6.61	10.57	100	9.71	64.2	0.0061	39	No	7.7	0.27	0.93	60° Wye	0.60	10.84	0.42	515.58	515.16	
9+80.00	8+60.00	120.00	D7B	0.41	0.37	0.70	0.26	6.87	10.84	100	9.67	66.5	0.0065	39	No	8.0	0.25	1.00	60° Wye	0.60	11.09	0.44	514.40	513.97	
8+60.00	7+40.00	120.00	D7C	0.40	0.40	0.70	0.28	7.15	11.09	100	9.64	68.9	0.0070	39	No	8.3	0.24	1.07	60° Wye	0.60	11.33	0.47	513.19	512.71	
7+40.00	6+20.00	120.00	D7D	0.40	0.40	0.70	0.28	7.43	11.33	100	9.60	71.3	0.0050	42	No	7.4	0.27	0.85	60° Wye	0.60	11.60	0.10	511.88	511.78	
6+20.00	5+00.00	120.00	D7E	0.40	0.40	0.70	0.28	7.71	11.60	100	9.56	73.7	0.0054	42	No	7.7	0.26	0.91	60° Wye	0.60	11.86	0.40	511.18	510.78	
5+00.00	3+40.00	160.00	D7F	0.40	0.40	0.70	0.28	7.99	11.86	100	9.52	76.1	0.0057	42	No	7.9	0.34	0.97	60° Wye	0.60	12.20	0.42	510.13	509.71	
3+40.00	2+35.00	105.00	D7G	0.53	0.53	0.70	0.37	8.36	12.20	100	9.47	79.2	0.0062	42	No	8.2	0.21	1.05	60° Wye	0.60	12.41	0.47	508.80	508.33	
2+35.00	1+43.03	91.97	D7H	0.31	0.31	0.72	0.22	8.58	12.41	100	9.44	81.0	0.0065	42	No	8.4	0.18	1.10	60° Wye	0.60	12.59	0.47	507.67	507.21	
1+43.03	0+57.20	85.83	D8	5.45	5.45	0.50	2.72	11.31	12.59	100	9.41	106.4	0.0112	42	No	11.1	0.13	1.90	MH	0.40	12.72	0.76	506.61	505.85	508.57
0+57.20	0+00.00	57.20	D7I	0.96	0.96	0.50	0.48	11.79	12.72	100	9.39	110.7	0.0121	42	No	11.5	0.08	2.06	60° Wye	0.60	12.80	0.92	504.89	503.97	
0+00.00																							503.28		
Lat D7A																									
0+08.08	0+00.00	8.08	29,29A	0.37	0.37	0.79	0.29	0.29	10.00	100	9.80	2.8	0.0007	18		1.6	0.08	0.04	Inlet	1.25	10.08	0.05	516.11	516.06	519.28
0+00.00																7.7	0.00	0.93		1.00	0.00	0.89	516.05	515.16	
Lat D7B																									
0+08.08	0+00.00	8.08	30,30A	0.41	0.37	0.70	0.26	0.26	10.00	100	9.80	2.5	0.0006	18		1.4	0.09	0.03	Inlet	1.25	10.09	0.04	514.97	514.93	518.09
0+00.00																8.0	0.00	1.00		1.00	0.00	0.96	514.93	513.97	
Lat D7C																									
0+08.08	0+00.00	8.08	31,31A	0.40	0.40	0.70	0.28	0.28	10.00	100	9.80	2.7	0.0007	18		1.6	0.09	0.04	Inlet	1.25	10.09	0.05	513.80	513.75	516.95
0+00.00																8.3	0.00	1.07		1.00	0.00	1.03	513.75	512.71	
Lat D7D																									
0+08.08	0+00.00	8.08	32,32A	0.40	0.40	0.70	0.28	0.28	10.00	100	9.80	2.7	0.0007	18		1.6	0.09	0.04	Inlet	1.25	10.09	0.05	512.65	512.60	515.81
0+00.00																7.4	0.00	0.85		1.00	0.00	0.82	512.60	511.78	
Lat D7E																									
0+08.08	0+00.00	8.08	33,33A	0.40	0.40	0.70	0.28	0.28	10.00	100	9.80	2.7	0.0007	18		1.6	0.09	0.04	Inlet	1.25	10.09	0.05	511.70	511.66	514.67
0+00.00																7.7	0.00	0.91		1.00	0.00	0.87	511.65	510.78	
Lat D7F																									
0+08.08	0+00.00	8.08	34,34A	0.40	0.40	0.70	0.28	0.28	10.00	100	9.80	2.7	0.0007	18		1.6	0.09	0.04	Inlet	1.25	10.09	0.05	510.69	510.65	513.53
0+00.00																7.9	0.00	0.97		1.00	0.00	0.93	510.64	509.71	
Lat D7G																									
0+08.08	0+00.00	8.08	35,35A	0.53	0.53	0.70	0.37	0.37	10.00	100	9.80	3.7	0.0012	18		2.1	0.07	0.07	Inlet	1.25	10.07	0.08	509.40	509.32	511.00
0+00.00																8.2	0.00	1.05		1.00	0.00	0.99	509.31	508.33	
Lat D7H																									
0+08.08	0+00.00	8.08	36,36A	0.31	0.31	0.72	0.22	0.22	10.00	100	9.80	2.2	0.0004	18		1.2	0.11	0.02	Inlet	1.25	10.11	0.03	508.32	508.29	509.84
0+00.00																8.4	0.00	1.10		1.00	0.00	1.08	508.28	507.21	
Lat D7I																									
0+29.58	0+00.00	29.58	37	0.96	0.96	0.50	0.48	0.48	10.00	100	9.80	4.7	0.0020	18		2.7	0.19	0.11	Inlet	1.25	10.19	0.14	506.12	505.98	507.30
0+00.00																11.5	0.00	2.06		1.00	0.00	1.95	505.92	503.97	
Line D8																									
2+85.54	2+09.79	75.75	22	3.05	3.05	0.50	1.52	1.52	10.00	100	9.80	14.9	0.0044	24	Yes	12.4	0.10	2.39	60° Wye	0.50	10.10	1.19	511.15	509.95	516.61
2+09.79	0+00.00	209.79	D8A	2.40	2.40	0.50	1.20	2.72	10.10	100	9.78	26.7	0.0139	24	Yes	12.5	0.28	2.43		1.00	10.38	0.04	509.62	509.58	516.27
0+00.00																11.1	0.00	1.90		1.00	0.00	0.00	506.67	505.85	
Lat D8a																									
0+10.17	0+00.00	10.17	23	2.40	2.40	0.50	1.20	1.20	10.00	100	9.80	11.8	0.0027	24		3.7	0.05	0.22	Inlet	1.25	10.05	0.27	512.09	511.82	516.27
0+00.00																12.5	0.00	2.43		1.00	0.00	2.21	511.79	509.58	
Line D9																									
3+91.48	3+68.48	23.00	24	1.70	1.70	0.50	0.85	0.85	10.00	100	9.80	8.3	0.0063	18	Yes	7.4	0.05	0.85	Inlet	1.25	10.05	1.06	524.28	523.22	526.71
3+68.48	3+54.34	14.14	Bend	0.00	0.00	0.50	0.00	0.85	10.05	100	9.79	8.3	0.0063	18	Yes	7.4	0.03	0.85	45° Bend	0.50	10.08	0.43	523.07	522.65	
3+54.34	1+90.67	163.67	Bend	0.00	0.00	0.50	0.00	0.85	10.08	100	9.79	8.3	0.0063	18	No	4.7	0.58	0.34	45° Bend	0.50	10.66	0.17	522.56	522.39	
1+90.67	0+41.05	149.62	D9A	5.61	5.61	0.50	2.81	3.66	10.66	100	9.70	35.5	0.0075	30	No	7.2	0.35	0.81	60° Wye	0.50	11.01	0.64	521.36	520.72	
0+41.05	0+00.00	41.05	D9B,D9C	2.20	2.20	0.50	1.10	4.76	11.01	100	9.65	45.9	0.0125	30	Yes	12.5	0.05	2.43	60° Wye	0.50	11.06	2.02	519.61	517.58	
0+00.00																7.4	0.00	0.86		1.00		0.00	517.07	516.25	
Lat D9a																									
0+36.52	0+00.00	36.52	28	5.61	5.61	0.50	2.81	2.81	10.00	100	9.80	27.5	0.0045	30		5.6	0.11	0.49	Inlet	1.25	10.11	0.61	521.82	521.21	523.18
0+00.00																7.2	0.00	0.81		1.00	0.00	0.32	521.05	520.72	
Lat D9b																									
0+17.90	0+00.00	17.90	26	0.92	0.92	0.50	0.46	0.46	10.00	100	9.80	4.5	0.0019	18		2.6	0.12	0.10	Inlet	1.25	10.12	0.13	520.07	519.94	521.22
0+00.00																12.5	0.00	2.43		1.00	0.00	2.32	519.91	517.58	
Lat D9c																									
0+17.90	0+00.00	17.90	27	1.28	1.28	0.50	0.64	0.64	10.00	100	9.80	6.3	0.0036	18		3.6	0.08	0.20		1.25	10.08	0.24	520.12	519.88	521.22
0+00.00																12.5	0.00	2.43		1.00	0.00	2.23	519.81	517.58	
Line D11																									
1+80.82	1+00.00	80.82	Detention Pond Outfall Rate From HEC-HMS Study									131.8	0.0018	6x4		5.7	0.24	0.50	Inlet	1.25	0.24	0.62	494.29	493.67	
1+00.00	0+00.00	100.00	0	0.00	0.00	0.50	0.00	0.00	0.24	100	11.26	131.8	0.0018	6x4		5.7	0.29	0.50	30° Bend	0.45	0.53	0.27	493.52	493.25	
0+00.00																							493.07		
Line D12																									
0+51.45	0+20.03	31.42	36	1.19	1.19	0.90	1.07	1.07	10.00	100	9.80	10.5	0.0022	24	Yes	17.3	0.03	4.65	Inlet	1.25	10.03	0.50	501.20	500.70	
0+20.03	0+00.00	20.03	Bend	0.00	0.00	0.90	0.00	1.07	10.03	100	9.80	10.5	0.0022	24	Yes	17.3	0.02	4.65	45° Bend	0.50	10.05	2.32	500.64	498.31	
0+00.00																							498.27		
Line D13																									
0+47.39	0+00.00	47.39	Taken from As-builts for Stone Creek Phase IV									57.6	0.0074	36	Yes	12.5	0.06	2.43		1.00	0.06	2.43	497.28	494.85	
0+00.00																							494.50		

INLET CALCULATIONS

Inlet No.	Inlet Station	Inlet Offset		Street	Design Storm Freq. (years)	Area Runoff: Q=CIA Tc (min)	Intensity "I" (in/hr)	Runoff Coeff. "C"	DA #	Area "A" (acres)	Q (cfs)	Carry-Over from Upstream (cfs)	Total Gutter Flow (cfs)	Gutter Capacity (cfs)	Gutter Slope (ft/100 ft)	Crown Type	Maximum Allowable Ponding Depth (ft)	Actual Ponding Depth (ft)	Maximum Allowable Spread (ft)	Actual Spread (ft)	Selected Inlet Length LI (ft)	Type	Inlet Capacity (cfs)	Carry-Over to Downstream Inlet (cfs)	Carry-Over to Downstream Inlet No.	Carry-Over CA
1*			RT	Memorial	100	10	9.8	0.50	1	2.48	12.1		12.1	N/A	N/A	N/A	1	0.37	N/A	N/A	4'X4'	WYE	29.0	0.0		
2	13+06.36	0+15.50	LT	Nakoma	100	10	9.8	0.50	2	0.73	3.6		3.6	16.9	1.51%	6" pbl	0.5	0.11	15	3.2	5	STD.	2.8	0.8	7	0.08
3	13+13.88	0+15.50	RT	Nakoma	100	10	9.8	0.50	3	0.79	3.9		3.9	16.9	1.51%	6" pbl	0.5	0.11	15	3.4	5	STD.	2.8	1.1	7	0.11
4	Not Used																									
5	7+39.35	0+35.00	LT	Memorial	100	10	9.8	0.50	5	0.34	1.7		1.7	N/A	N/A	N/A	1.0	0.10	N/A	N/A	4'X4'	WYE	29.0	0.0	-	
6*	7+39.35	0+35.00	RT	Memorial	100	10	9.8	0.50	6	2.47	12.1		12.1	N/A	N/A	N/A	1.0	0.37	N/A	N/A	4'X4'	WYE	29.0	0.0	-	
7	6+43.00	0+15.50	LT	Memorial	100	10	9.8	0.50	7	0.78	3.8	1.9	5.7	16.9	1.50%	6" pbl	0.5	0.17	15	5.0	10	STD.	6.6	0.0	-	
7-Interim	6+43.00	0+15.50	LT	Memorial	100	10	9.8	0.50	INT 7	0.70	3.4		3.4	16.9	1.50%	6" pbl	0.5	0.10	15	3.0	10	STD.	6.6	0.0	-	
8	6+43.00	0+15.50	RT	Memorial	100	10	9.8	0.50	8	0.72	3.5		3.5	16.9	1.50%	6" pbl	0.5	0.10	15	3.1	10	STD.	6.6	0.0	-	
8-Interim	6+43.00	0+15.50	RT	Memorial	100	10	9.8	0.50	INT 8	0.29	1.4		1.4	16.9	1.50%	6" pbl	0.5	0.04	15	1.3	10	STD.	6.6	0.0	-	
9	3+84.34	0+35.00	RT	Memorial	100	10	9.8	0.50	9	4.18	20.5		20.5	N/A	N/A	N/A	1.0	0.53	N/A	N/A	4'X4'	WYE	29.0	0.0	-	
9-Interim	3+84.34	0+35.00	RT	Memorial	100	10	8.3	0.35	INT 9	6.99	20.3		20.3	N/A	N/A	N/A	1.0	0.53	N/A	N/A	4'X4'	WYE	29.0	0.0	-	
10	13+81.00	0+15.50	LT	Harvard	100	10	9.8	0.50	10	0.79	3.9		3.9	11.6	0.70%	6" pbl	0.5	0.17	15	5.0	10	STD.	7.3	0.0	-	
11	13+89.00	0+15.50	RT	Harvard	100	10	9.8	0.50	11	0.56	2.7		2.7	11.6	0.70%	6" pbl	0.5	0.12	15	3.6	5	STD.	3.1	0.0	-	
12	7+07.00	0+15.50	LT	Nakoma	100	10	9.8	0.50	12	0.76	3.7		3.7	20.5	2.20%	6" pbl	0.5	0.09	15	2.7	5	STD.	2.6	1.1	16	0.11
13	7+12.00	0+15.50	RT	Nakoma	100	10	9.8	0.50	13	0.91	4.5		4.5	18.8	1.84%	6" pbl	0.5	0.12	15	3.6	10	STD.	6.6	0.0	-	
14	5+69.38	0+33.00	LT	Harvard	100	10	9.8	0.50	14	1.79	8.8		8.8	N/A	N/A	N/A	1.0	0.29	N/A	N/A	4'X4'	WYE	29.0	0.0	-	
15	1+66.03	0+15.50	RT	Harvard	100	10	9.8	0.50	15	1.60	7.9		7.9	22.5	Low Pt	6" pbl	0.5	0.17	15	5.2	10	STD.	21.0	0.0	-	
16	1+66.03	0+15.50	LT	Harvard	100	10	9.8	0.50	16	2.19	10.7	1.1	11.9	22.5	Low Pt	6" pbl	0.5	0.26	15	7.9	10	STD.	21.0	0.0	-	
17	2+00.00	0+15.50	RT	Montrose	100	10	9.8	0.50	17	1.10	5.4		5.4	11.6	0.70%	6" pbl	0.5	0.23	15	7.0	10	STD.	7.3	0.0	-	
17-Interim	2+00.00	0+15.50	RT	Montrose	100	10	9.8	0.50	INT 17	0.92	4.5		4.5	11.6	0.70%	6" pbl	0.5	0.19	15	5.8	10	STD.	7.3	0.0	-	
18	2+24.00	0+15.50	LT	Montrose	100	10	9.8	0.50	18	0.43	2.1		2.1	17.6	0.70%	6" pbl	0.5	0.06	15	1.8	5	STD.	3.1	0.0		
18-Interim	2+24.00	0+15.50	LT	Montrose	100	10	9.8	0.50	INT 18	0.30	1.5		1.5	17.6	0.70%	6" pbl	0.5	0.04	15	1.3	5	STD.	3.1	0.0		
19	1+50.00	0+15.50	RT	Nakoma	100	10	9.8	0.50	19	1.43	7.0		7.0	13.8	1.00%	6" pbl	0.5	0.25	15	7.6	10	STD.	7.0	0.0		
20	0+80.00	0+15.50	LT	Nakoma	100	10	9.8	0.50	20	1.09	5.3		5.3	13.8	1.00%	6" pbl	0.5	0.19	15	5.8	10	STD.	7.0	0.0		
21	N/A	N/A	N/A	N/A	100	10	9.8	0.50	21	1.81	8.9		8.9	N/A	N/A	N/A	1.0	0.30	N/A	N/A	4'X4'	WYE	29.0	0.0		
22	0+51.48	0+15.50	LT	Emerson	100	10	9.8	0.50	22	3.05	14.9		14.9	26.2	Low Pt	6" pbl	0.5	0.28	15	8.5	10	STD.	21.0	0.0		
23	0+09.57	0+32.80	RT	Emerson	100	10	9.8	0.50	23	2.40	11.8		11.8	26.2	Low Pt	6" pbl	0.5	0.22	15	6.7	10	STD.	21.0	0.0		
24*	3+89.34	0+33.00	RT	Memorial	100	10	9.8	0.50	24	1.70	8.3		8.3	N/A	N/A	N/A	1.0	0.29	N/A	N/A	4'X4'	WYE	29.0	0.0		
25	20+04.75	0+47.00	LT	Quail Run	100	10	9.8	0.69	25,25A	2.27	15.4		15.4	N/A	N/A	N/A	1.0	0.43	N/A	N/A	4'X4'	WYE	29.0	0.0		
25-Interim	19+94.72	0+37.00	LT	Quail Run	100	20	8.3	0.35	INT 25	5.96	17.3		17.3	N/A	N/A	N/A	1.0	0.70	N/A	N/A	4'X4'	WYE	29.0	0.0		
26	0+75.00	0+15.50	RT	Memorial	100	10	9.8	0.50	26	0.92	4.5		4.5	21.8	2.49%	6" pbl	0.5	0.10	15	3.1	10	STD.	6.3	0.0		
26-interim	0+75.00	0+15.50	RT	Memorial	100	10	9.8	0.50	INT 26	0.33	1.6		1.6	13.1	2.49%	6" pbl	0.5	0.06	15	1.8	10	STD.	6.3	0.0		
27	0+75.00	0+15.50	LT	Memorial	100	10	9.8	0.50	27	1.28	6.3		6.3	21.8	2.49%	6" pbl	0.5	0.14	15	4.3	10	STD.	6.3	0.0		
28	1+99.33	0+35.00	RT	Memorial	100	10	9.8	0.50	28	5.61	27.5		27.5	N/A	N/A	N/A	1.0	0.59	N/A	N/A	4'X4'	WYE	29.0	0.0		
28-Interim	1+99.33	0+35.00	RT	Memorial	100	20	8.3	0.35	INT 28	8.49	24.7		24.7	N/A	N/A	N/A	1.0	0.59	N/A	N/A	4'X4'	WYE	29.0	0.0		
29	18+10.00	0+32.00	LT	Quail Run	100	10	9.8	0.79	29,29A	0.37	2.8		2.8	22.5	0.95%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	12.0	0.0	29	0.00
30	16+85.00	0+32.00	LT	Quail Run	100	10	9.8	0.79	30,30A	0.37	2.8		2.8	22.5	0.95%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	11.1	0.0		
31	15+65.00	0+32.00	LT	Quail Run	100	10	9.8	0.70	31,31A	0.40	2.7		2.7	22.5	0.95%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	11.1	0.0		
32	14+45.00	0+32.00	LT	Quail Run	100	10	9.8	0.70	32,32A	0.40	2.7		2.7	22.5	0.95%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	11.1	0.0		
33	13+25.00	0+32.00	LT	Quail Run	100	10	9.8	0.70	33,33A	0.40	2.7		2.7	22.5	0.95%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	11.1	0.0		
34	12+05.00	0+32.00	LT	Quail Run	100	10	9.8	0.70	34,34A	0.40	2.7		2.7	22.5	0.95%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	11.1	0.0		
35	10+45.00	0+32.00	LT	Quail Run	100	10	9.8	0.70	35,35A	0.53	3.7		3.7	22.5	1.60%	1/4"/FT	0.24	0.24	12	12.0	5	STD.	11.1	0.0		
36	9+40.00	0+32.00	LT	Quail Run	100	10	9.8	0.72	36,36A	0.31	2.2		2.2	22.5	0.73%	1/4"/FT	0.23	0.23	12	11.5	5	STD.	11.1	0.0		
37	7+69.02	0+47.50	LT	Quail Run	100	10	9.8	0.50	37	0.96	4.7		4.7	N/A	N/A	N/A	1.0	0.18	N/A	N/A	4'X4'	WYE	29.0	0.0		
38	7+65.83	0+32.00	RT	Quail Run	100	10	9.8	0.90	38	1.19	10.5		10.5	20.0	0.95%	1/2"/FT	0.50	0.51	12	12.2	15	STD.	11.0	0.0		

* - INLET TO BE INSTALLED IN FUTURE PHASE

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

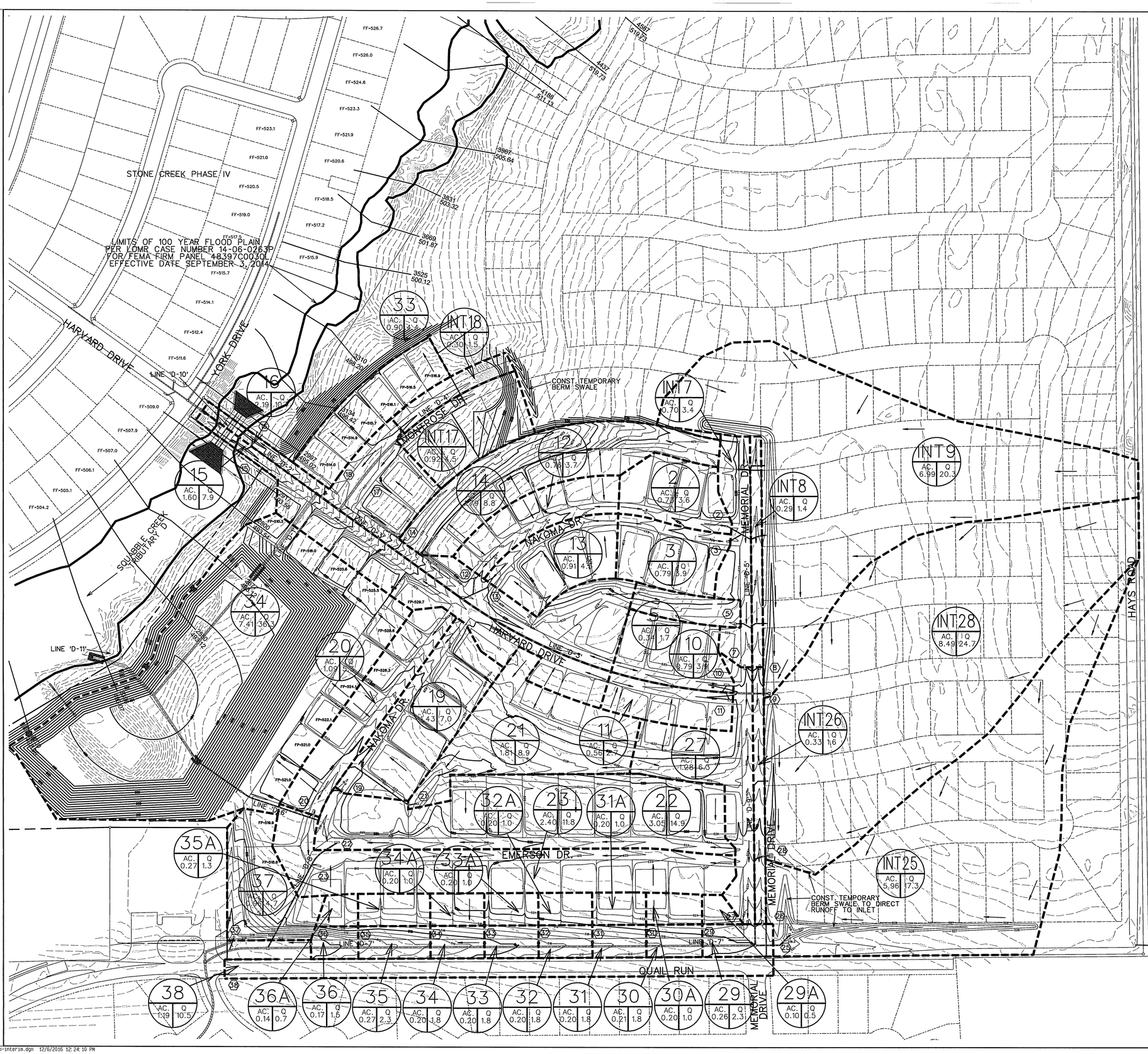
AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

DRAINAGE CALUCLATIONS

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	3A OF 31



RUNOFF COMPUTATIONS								
Area #	Area (sf)	Area (acres)	Runoff Coefficient	CA	Tc (min)	I(100) (in/hr)	Q(100) (cfs)	Drains To:
1	107840	2.48	0.50	1.24	10	9.80	12.1	Inlet 1
2	31904	0.73	0.50	0.37	10	9.80	3.6	Inlet 2
3	34447	0.79	0.50	0.40	10	9.80	3.9	Inlet 3
4	99539	2.29	0.50	1.14	10	9.80	11.2	Inlet 4
5	14848	0.34	0.50	0.17	10	9.80	1.7	Inlet 5
6	107750	2.47	0.50	1.24	10	9.80	12.1	Inlet 6
7	33914	0.78	0.50	0.39	10	9.80	3.8	Inlet 7
8	31321	0.72	0.50	0.36	10	9.80	3.5	Inlet 8
9	182130	4.18	0.50	2.09	10	9.80	20.5	Inlet 9
10	34314	0.79	0.50	0.39	10	9.80	3.9	Inlet 10
11	24396	0.56	0.50	0.28	10	9.80	2.7	Inlet 11
12	32953	0.76	0.50	0.38	10	9.80	3.7	Inlet 12
13	39744	0.91	0.50	0.46	10	9.80	4.5	Inlet 13
14	77900	1.79	0.50	0.89	10	9.80	8.8	Inlet 14
15	69881	1.60	0.50	0.80	10	9.80	7.9	Inlet 15
16	95536	2.19	0.50	1.10	10	9.80	10.7	Inlet 16
17	48027	1.10	0.50	0.55	10	9.80	5.4	Inlet 17
18	18897	0.43	0.50	0.22	10	9.80	2.1	Inlet 18
19	62388	1.43	0.50	0.72	10	9.80	7.0	Inlet 19
20	47277	1.09	0.50	0.54	10	9.80	5.3	Inlet 20
21	78968	1.81	0.50	0.91	10	9.80	8.9	Inlet 21
22	132752	3.05	0.50	1.52	10	9.80	14.9	Inlet 22
23	104576	2.40	0.50	1.20	10	9.80	11.8	Inlet 23
24	74017	1.70	0.50	0.85	10	9.80	8.3	Inlet 24
25	46842	1.08	0.50	0.97	10	9.80	9.5	Inlet 25
25A	52152	1.20	0.50	0.60	10	9.80	5.9	Inlet 25
26	40189	0.92	0.50	0.46	10	9.80	4.5	Inlet 26
27	55782	1.28	0.50	0.64	10	9.80	6.3	Inlet 27
28	244439	5.61	0.50	2.81	10	9.80	27.5	Lat D9a
29	11443	0.26	0.90	0.24	10	9.80	2.3	Inlet 29
29A	4508	0.10	0.50	0.05	10	9.80	0.5	Inlet 29
30	9063	0.21	0.90	0.19	10	9.80	1.8	Inlet 30
30A	8719	0.20	0.50	0.10	10	9.80	1.0	Inlet 30
31	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 31
31A	8707	0.20	0.50	0.10	10	9.80	1.0	Inlet 31
32	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 32
32A	8718	0.20	0.50	0.10	10	9.80	1.0	Inlet 32
33	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 33
33A	8718	0.20	0.50	0.10	10	9.80	1.0	Inlet 33
34	8700	0.20	0.90	0.18	10	9.80	1.8	Inlet 34
34A	8718	0.20	0.50	0.10	10	9.80	1.0	Inlet 34
35	11600	0.27	0.90	0.24	10	9.80	2.3	Inlet 35
35A	11623	0.27	0.50	0.13	10	9.80	1.3	Inlet 35
36	7458	0.17	0.90	0.15	10	9.80	1.5	Inlet 36
36A	5882	0.14	0.50	0.07	10	9.80	0.7	Inlet 36
37	41800	0.96	0.50	0.48	10	9.80	4.7	Inlet 37
38	51851	1.19	0.90	1.07	10	9.80	10.5	Inlet 38
39	39248	0.90	0.50	0.45	10	9.80	4.4	To Creek
40	795029	18.25	0.50	9.13	10	9.80	89.4	Line D4
41	322578	7.41	0.50	3.70	10	9.80	36.3	To Pond
INT 7	30455	0.70	0.50	0.35	10	9.80	3.4	Interim to Inlet 7
INT 8	12800	0.29	0.50	0.15	10	9.80	1.4	Interim to Inlet 8
INT 9	304352	6.99	0.35	2.45	20	8.30	20.3	Interim to Inlet 9
INT 17	40090	0.92	0.50	0.46	10	9.80	4.5	Interim to Inlet 17
INT 18	13035	0.30	0.50	0.15	10	9.80	1.5	Interim to Inlet 18
INT 25	259779	5.96	0.35	2.09	20	8.30	17.3	Interim to Inlet 25
INT 26	14263	0.33	0.50	0.16	10	9.80	1.6	Interim to Inlet 26
INT 28	370006	8.49	0.35	2.97	20	8.30	24.7	Interim to Inlet 28

LEGEND

- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL
- EXIST. STORM SEWER
- DRAINAGE AREA DIVIDE
- FLOW ARROW
- DRAINAGE AREA NO. (AC. / Q)

0 50 100 200
SCALE: 1" = 100'

N

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

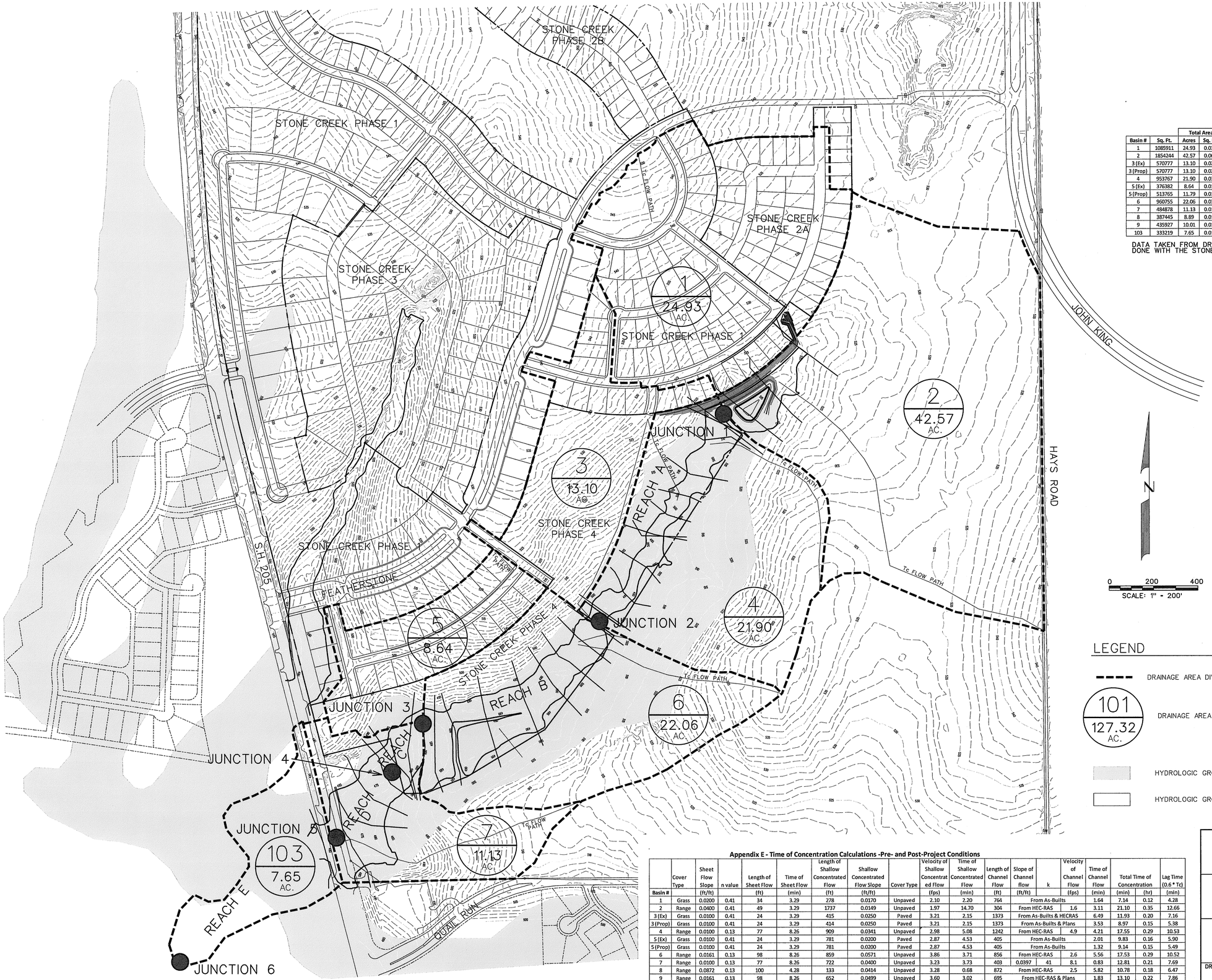
AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

INTERIM CONDITIONS DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=100'	3B OF 31



DRAINAGE BASIN ATTRIBUTES

				Future Land Use						
		Total Area		Type C Soil			Type D Soil			
					Single Family Lot Size			Single Family Lot Size		Weighted CN
Basin #	Sq. Ft.	Acres	Sq. Mi.	Open Space	1/8 Acre	1/4 Acre	Open Space	1/8 Acre	1/4 Acre	(ac)
1	1085911	24.93	0.0390	0	0	0	125989	959922		95.64
2	1854244	42.57	0.0665	52310			1801934			90.10
3 (Ex)	570777	13.10	0.0205	4660			392738	173379		92.04
3 (Prop)	570777	13.10	0.0205		4660			566117		96.35
4	953767	21.90	0.0342	505506	37995		377976	32290		88.78
5 (Ex)	376382	8.64	0.0135		38674			337708		96.26
5 (Prop)	513765	11.79	0.0184		39074	9758		174875	290058	94.81
6	960755	22.06	0.0345	524031			436724			88.32
7	484878	11.13	0.0174	256669			228209			88.37
8	387445	8.89	0.0139	352855			34590			87.06
9	435927	10.01	0.0156	161019			274908			88.92
103	333219	7.65	0.0120	Used Values from MDS						76.87

DATA TAKEN FROM DRAINAGE STUDY FOR SQUABBLE CREEK TRIBUTARY D DONE WITH THE STONE CREEK PHASE IV DEVELOPMENT, DATED FEBRUARY, 2013

HEC-HMS RESULTS - PRE-PROJECT FLOW

Hydrologic Element	Drainage Area (SM)	10 Year Peak Flow	50 Year Peak Flow	100 Year Peak Flow	500 Year Peak Flow
Junction-1	0.1055	282.8	380.3	428.8	532.4
Junction-2	0.1602	311.9	466.5	547.7	714.6
Junction-3	0.1947	295.2	469.4	545.5	711.2
Junction-4	0.2082	308.9	462.5	539.9	702.2
Junction-5	**0.2256**	**306.5**	**418.3**	**463.4**	**576.8**
Junction-6	0.2376	310.0	423.7	469.7	585.2
Reach-A	0.1055	207.6	307.5	358.0	464.0
Reach-B	0.1602	250.3	393.3	453.4	579.6
Reach-C	0.1947	294.9	445.0	519.2	674.7
Reach-D	0.2082	292.5	405.1	449.5	560.1
Reach-E	0.2256	304.7	417.3	462.4	575.9
Reservoir-1	0.1055	221.0	335.2	390.4	493.3
Subbasin-1	0.0390	141.9	188.2	211.3	260.7
Subbasin-103	0.0120	32.2	47.1	54.5	70.5
Subbasin-2	0.0665	175.7	238.1	269.2	335.3
Subbasin-3	0.0205	65.9	88.6	99.8	123.8
Subbasin-4	0.0342	94.6	129.0	146.1	182.5
Subbasin-5	0.0135	47.0	62.2	69.9	86.1
Subbasin-6	0.0345	94.8	129.6	146.8	183.6
Subbasin-7	0.0174	52.4	71.6	81.1	101.4

DATA TAKEN FROM DRAINAGE STUDY FOR SQUABBLE CREEK TRIBUTARY D DONE WITH THE STONE CREEK PHASE IV DEVELOPMENT, DATED FEBRUARY, 2013

LEGEND

- DRAINAGE AREA DIVIDE
- 101 / 127.32 AC. — DRAINAGE AREA NO.
- HYDROLOGIC GROUP C SOIL
- HYDROLOGIC GROUP D SOIL

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

Appendix E - Time of Concentration Calculations -Pre- and Post-Project Conditions

	Cover Type	Sheet Flow Slope	n value	Length of Sheet Flow	Time of Sheet Flow	Length of Shallow Concentrated Flow	Shallow Concentrated Flow Slope	Cover Type	Velocity of Shallow Concentrated Flow	Time of Shallow Concentrated Flow	Length of Channel Flow	Slope of Channel flow	k	Velocity of Channel Flow	Time of Channel Flow	Total Time of Concentration		Lag Time (0.6 * Tc)
Basin #		(ft/ft)		(ft)	(min)	(ft)	(ft/ft)		(fps)	(min)	(ft)	(ft/ft)		(fps)	(min)	(min)	(hr)	(min)
1	Grass	0.0200	0.41	34	3.29	278	0.0170	Unpaved	2.10	2.20	764	From As-Builts		1.64	7.14	0.12	4.28	
2	Range	0.0400	0.41	49	3.29	1737	0.0149	Unpaved	1.97	14.70	304	From HEC-RAS	1.6	3.11	21.10	0.35	12.66	
3 (Ex)	Grass	0.0100	0.41	24	3.29	415	0.0250	Paved	3.21	2.15	1373	From As-Builts & HECRAS		6.49	11.93	0.20	7.16	
3 (Prop)	Grass	0.0100	0.41	24	3.29	414	0.0250	Paved	3.21	2.15	1373	From As-Builts & Plans		3.53	8.97	0.15	5.38	
4	Range	0.0100	0.13	77	8.26	909	0.0341	Unpaved	2.98	5.08	1242	From HEC-RAS	4.9	4.21	17.55	0.29	10.53	
5 (Ex)	Grass	0.0100	0.41	24	3.29	781	0.0200	Paved	2.87	4.53	405	From As-Builts		2.01	9.83	0.16	5.90	
5 (Prop)	Grass	0.0100	0.41	24	3.29	781	0.0200	Paved	2.87	4.53	405	From As-Builts		1.32	9.14	0.15	5.49	
6	Range	0.0161	0.13	98	8.26	859	0.0571	Unpaved	3.86	3.71	856	From HEC-RAS	2.6	5.56	17.53	0.29	10.52	
7	Range	0.0100	0.13	77	8.26	722	0.0400	Unpaved	3.23	3.73	403	0.0397	41	8.1	0.83	12.81	0.21	7.69
8	Range	0.0872	0.13	100	4.28	133	0.0414	Unpaved	3.28	0.68	872	From HEC-RAS	2.5	5.82	10.78	0.18	6.47	
9	Range	0.0161	0.13	98	8.26	652	0.0499	Unpaved	3.60	3.02	695	From HEC-RAS & Plans		1.83	13.10	0.22	7.86	
103							Used Values from MDS								6.90	0.12	4.14	

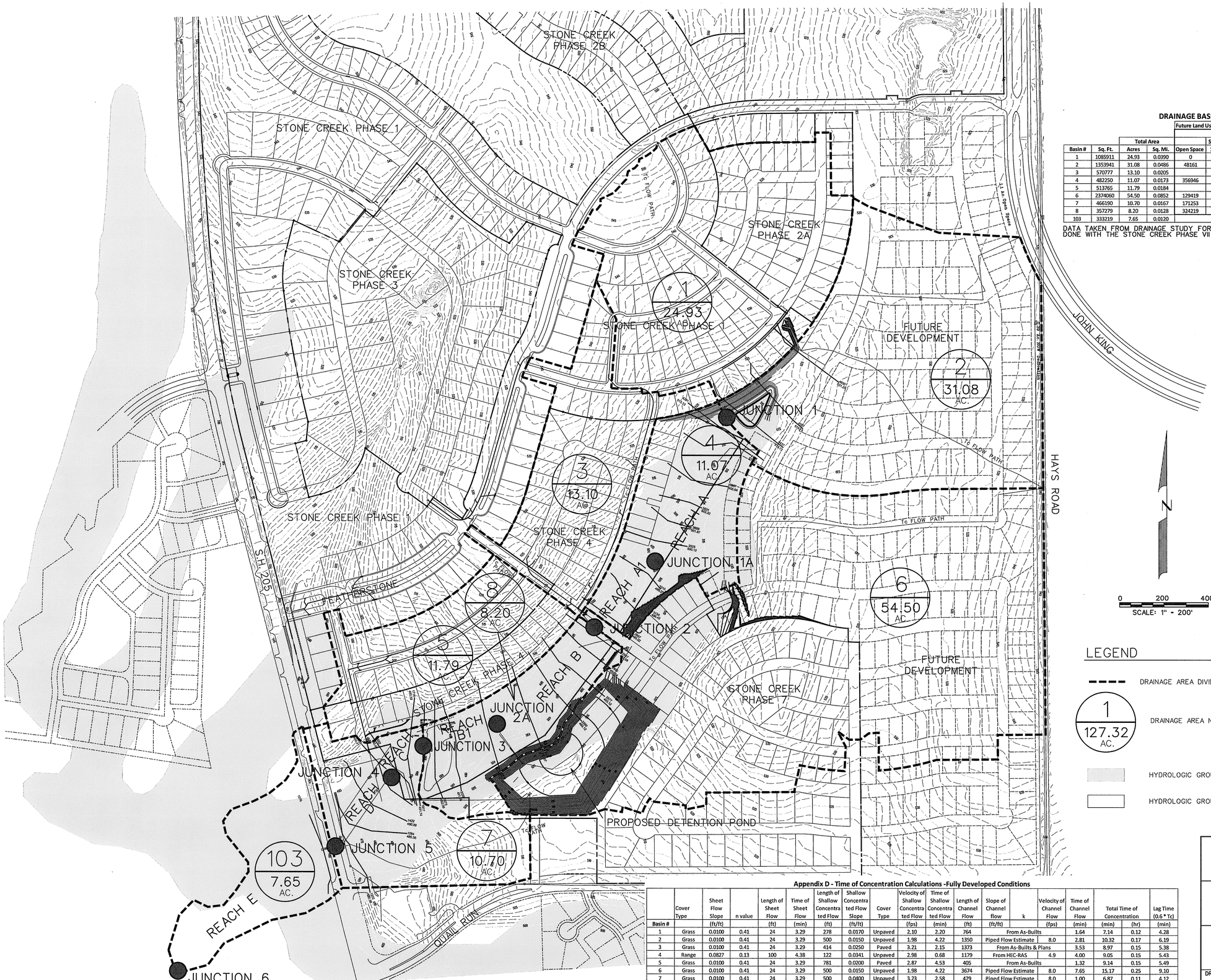
DATA TAKEN FROM DRAINAGE STUDY FOR SQUABBLE CREEK TRIBUTARY D DONE WITH THE STONE CREEK PHASE IV DEVELOPMENT, DATED FEBRUARY, 2013

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

EXISTING CONDITIONS DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=200'	4 OF 31



DRAINAGE BASIN ATTRIBUTES - Fully Developed Conditions

				Future Land Use								
		Total Area		Type C Soil				Type D Soil				
				Single Family Lot Size				Single Family Lot Size				Weighted CN
Basin #	Sq. Ft.	Acres	Sq. Mi.	Open Space	1/8 Acre	1/4 Acre	Commercial	Open Space	1/8 Acre	1/4 Acre	Commercial	(ac)
1	1085911	24.93	0.0390	0	0	0		125989	959922			95.64
2	1353941	31.08	0.0486	48161	4063			145775	1155942			95.35
3	570777	13.10	0.0205		4660				566117			96.35
4	482250	11.07	0.0173	356946	80697			12316	32291			88.93
5	513765	11.79	0.0184		39074	9758			174875	290058		94.81
6	2374060	54.50	0.0852	129419	163412			119747	1961482			95.46
7	466190	10.70	0.0167	171253			85143	56966			152828	92.71
8	357279	8.20	0.0128	324219	2500			30560				87.10
103	333219	7.65	0.0120	Used Values from MDS								76.87

DATA TAKEN FROM DRAINAGE STUDY FOR SQUABBLE CREEK TRIBUTARY D DONE WITH THE STONE CREEK PHASE VII DEVELOPMENT, DATED JANUARY, 2016.

HEC-HMS RESULTS - FULLY DEVELOPED CONDITIONS FLOW

Hydrologic Element	Drainage Area (SM)	10 Year Peak Flow	50 Year Peak Flow	100 Year Peak Flow	500 Year Peak Flow
Junction-1	0.0876	305.7	405.7	455.6	562.3
Junction-1A	0.1035	221.4	333.7	395.2	522.7
Junction-2	0.1240	259.3	387.3	458.9	608.7
Junction-2A	0.2106	259.1	394.3	478.4	682.8
Junction-3	0.2234	264.4	409.7	477.5	689.2
Junction-4	0.2418	275.4	418.0	475.5	625.5
Junction-5	**0.2585**	**273.1**	**383.0**	**433.0**	**568.4**
Junction-6	0.2705	275.9	387.7	438.0	575.5
Reach-A	0.0876	192.2	288.0	339.8	449.1
Reach-A1	0.1035	220.3	331.1	391.6	518.6
Reach-B	0.1240	194.2	302.0	363.6	475.7
Reach-B1	0.2106	255.5	391.3	458.0	660.6
Reach-C	0.2234	264.2	400.3	459.7	607.3
Reach-D	0.2418	265.7	373.4	423.0	557.2
Reach-E	0.2585	271.6	381.8	431.8	568.1
Reservoir-1	0.0876	212.5	334.6	393.8	500.8
Reservoir-2 FD	0.0866	65.1	102.5	131.8	213.3
Subbasin-1	0.0390	141.9	188.2	211.3	260.7
Subbasin-103	0.0120	32.2	47.1	54.5	70.5
Subbasin-2	0.0486	166.4	221.0	248.2	306.3
Subbasin-3	0.0205	72.4	95.9	107.6	132.7
Subbasin-4	0.0159	56.5	77.0	87.1	108.7
Subbasin-5	0.0184	64.2	85.3	95.8	118.4
Subbasin-6	0.0866	266.1	353.3	396.7	489.7
Subbasin-7	0.0167	59.6	79.8	89.8	111.3
Subbasin-8	0.0128	45.5	62.5	71.0	89.0

DATA TAKEN FROM DRAINAGE STUDY FOR SQUABBLE CREEK TRIBUTARY D DONE WITH THE STONE CREEK PHASE VII DEVELOPMENT, DATED JANUARY, 2016.

LEGEND

- DRAINAGE AREA DIVIDE
- 1 / 127.32 AC. — DRAINAGE AREA NO.
- HYDROLOGIC GROUP C SOIL
- HYDROLOGIC GROUP D SOIL

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

Appendix D - Time of Concentration Calculations -Fully Developed Conditions

	Cover Type	Sheet Flow Slope	n value	Length of Sheet Flow	Time of Sheet Flow	Length of Shallow Concentrated Flow	Shallow Concentrated Flow Slope	Cover Type	Velocity of Shallow Concentrated Flow	Time of Shallow Concentrated Flow	Length of Channel Flow	Slope of Channel flow	k	Velocity of Channel Flow	Time of Channel Flow	Total Time of Concentration		Lag Time (0.6 * Tc)
Basin #		(ft/ft)		(ft)	(min)	(ft)	(ft/ft)		(fps)	(min)	(ft)	(ft/ft)		(fps)	(min)	(min)	(hr)	(min)
1	Grass	0.0100	0.41	24	3.29	278	0.0170	Unpaved	2.10	2.20	764	From As-Builts			1.64	7.14	0.12	4.28
2	Grass	0.0100	0.41	24	3.29	500	0.0150	Unpaved	1.98	4.22	1350	Piped Flow Estimate		8.0	2.81	10.32	0.17	6.19
3	Grass	0.0100	0.41	24	3.29	414	0.0250	Paved	3.21	2.15	1373	From As-Builts & Plans			3.53	8.97	0.15	5.38
4	Range	0.0827	0.13	100	4.38	122	0.0341	Unpaved	2.98	0.68	1179	From HEC-RAS		4.9	4.00	9.05	0.15	5.43
5	Grass	0.0100	0.41	24	3.29	781	0.0200	Paved	2.87	4.53	405	From As-Builts			1.32	9.14	0.15	5.49
6	Grass	0.0100	0.41	24	3.29	500	0.0150	Unpaved	1.98	4.22	3674	Piped Flow Estimate		8.0	7.65	15.17	0.25	9.10
7	Grass	0.0100	0.41	24	3.29	500	0.0400	Unpaved	3.23	2.58	479	Piped Flow Estimate		8.0	1.00	6.87	0.11	4.12
8	Range	0.0872	0.13	100	4.28	133	0.0414	Unpaved	3.28	0.68	872	From HEC-RAS		2.5	5.82	10.78	0.18	6.47
103		Used Values from MDS														6.90	0.12	4.14

DATA TAKEN FROM DRAINAGE STUDY FOR SQUABBLE CREEK TRIBUTARY D DONE WITH THE STONE CREEK PHASE VII DEVELOPMENT, DATED JANUARY, 2016.

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
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TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK PHASE VII
ROCKWALL, TEXAS

FULLY DEVELOPED CONDITIONS
OVERALL DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=200'	5 OF 31

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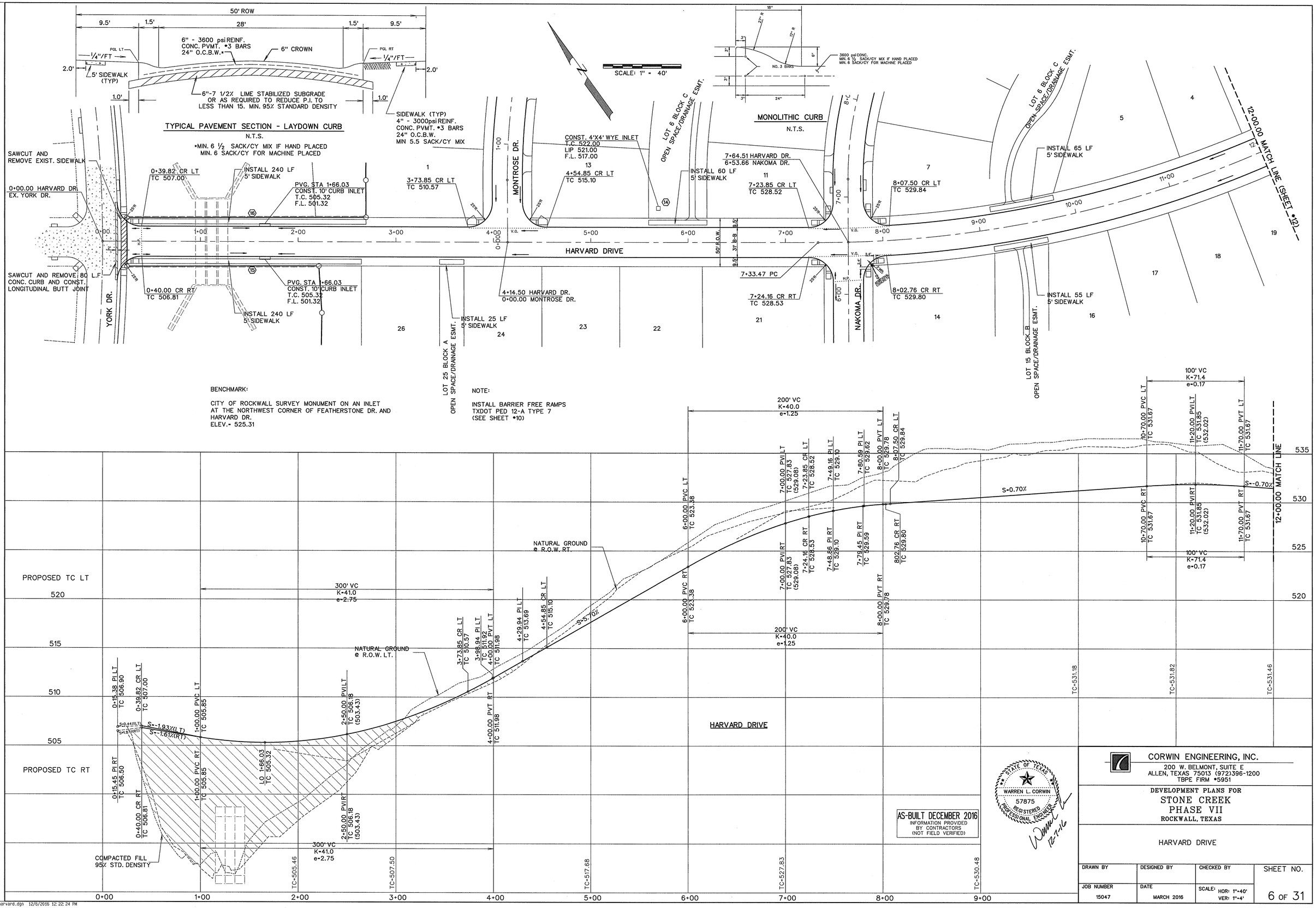

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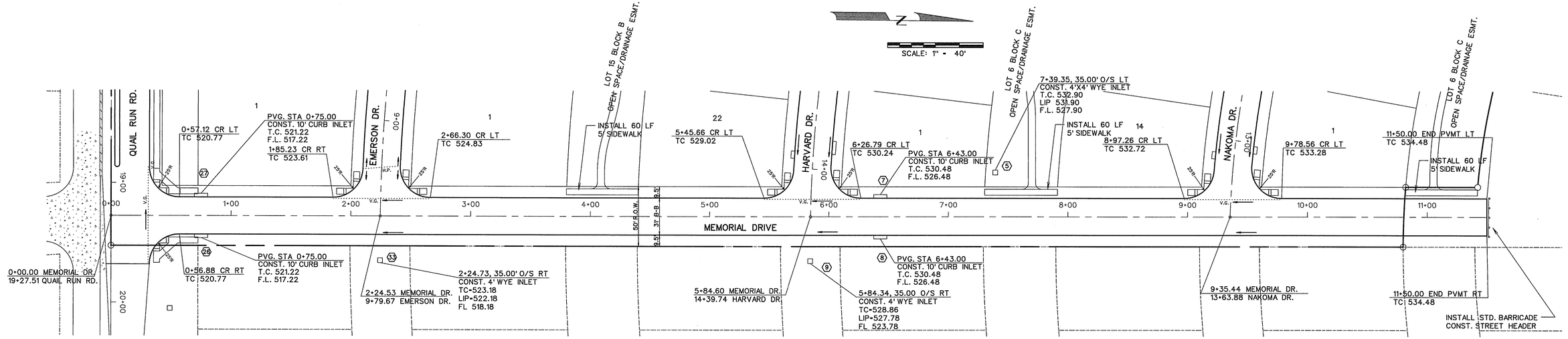
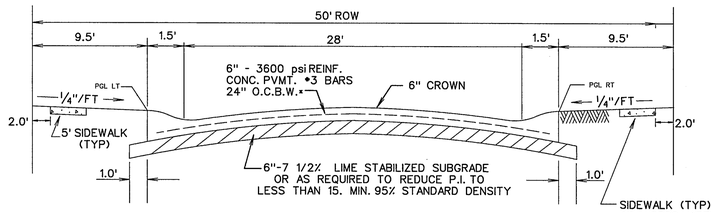
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

HARVARD DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	6 OF 31





TYPICAL PAVEMENT SECTION - LAYDOWN CURB

N.T.S.

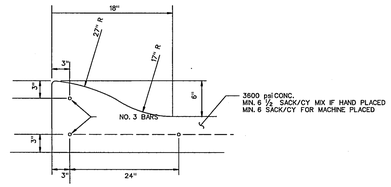
*MIN. 6 1/2 SACK/CY MIX IF HAND PLACED
MIN. 6 SACK/CY FOR MACHINE PLACED

NOTE:

INSTALL BARRIER FREE RAMPS
TXDOT PED 12-A TYPE 7
(SEE SHEET #10)

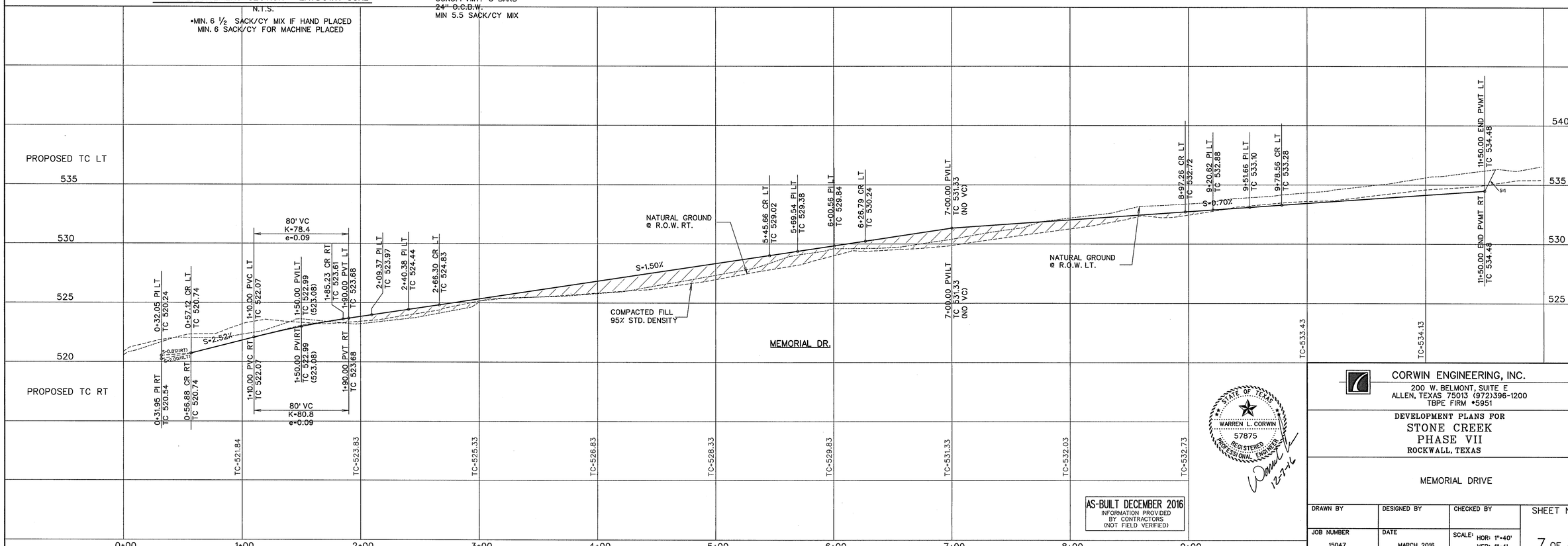
BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.= 525.31



MONOLITHIC CURB

N.T.S.



AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

MEMORIAL DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	7 OF 31

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LOT 15 BLOCK B
OPEN SPACE/DRAINAGE ESMT.
1.921 ACRES

SCALE: 1" = 40'

CONST. 4'X4' WYE INLET
T.C. 522.08
I.F. 521.00
F.L. 517.00

INSTALL 94 LF
5' SIDEWALK

0+45.97 CR LT
TC 516.57

PVG. STA 0+51.48
CONST. 10' CURB INLET
T.C. 516.61
F.L. 512.61

TC 517.38

NAKOMA DR.

0+00.00 EMERSON DR.
0+00.00 NAKOMA DR.

PVG. STA 0+09.57
CONST. 10' CURB INLET
T.C. 516.27
F.L. 512.27

TC 516.63

0+75.21 CR RT
TC 516.77

INSTALL 152 L.F. 4' CONC.
POSITIVE OVERFLOW

TP513.0

EMERSON DRIVE

50' R.O.W.
31' B-B

8+04.36 PRC

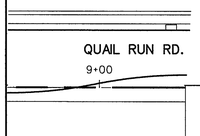
9+37.32 CR LT
TC 524.64

9+40.88 CR RT
TC 524.31

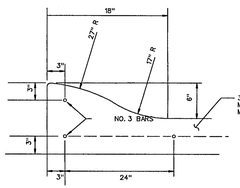
7+17.75 PC

MEMORIAL DR.

9+79.67 EMERSON DR.
2+24.53 MEMORIAL DR.



POSITIVE OVERFLOW DETAIL
NTS



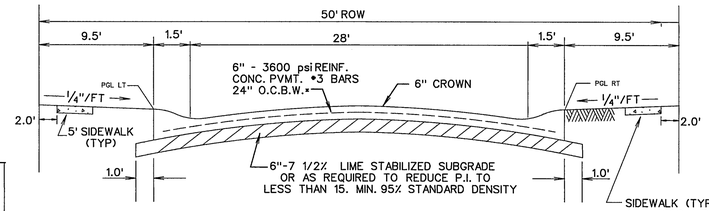
MONOLITHIC CURB
N.T.S.

NOTE:

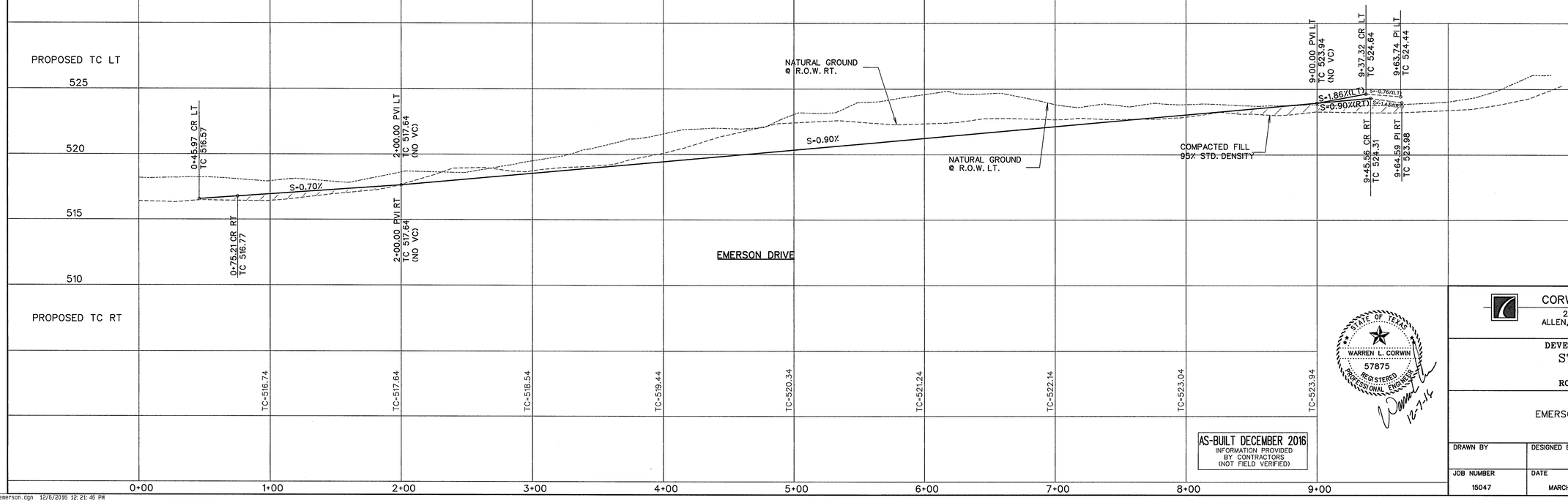
INSTALL BARRIER FREE RAMPS
TXDOT PED 12-A TYPE 7
(SEE SHEET #10)

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET
AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND
HARVARD DR.
ELEV.- 525.31



TYPICAL PAVEMENT SECTION - LAYDOWN CURB
N.T.S.
*MIN. 6 ½ SACK/CY MIX IF HAND PLACED
MIN. 6 SACK/CY FOR MACHINE PLACED



AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED
PROFESSIONAL ENGINEER
12-7-16

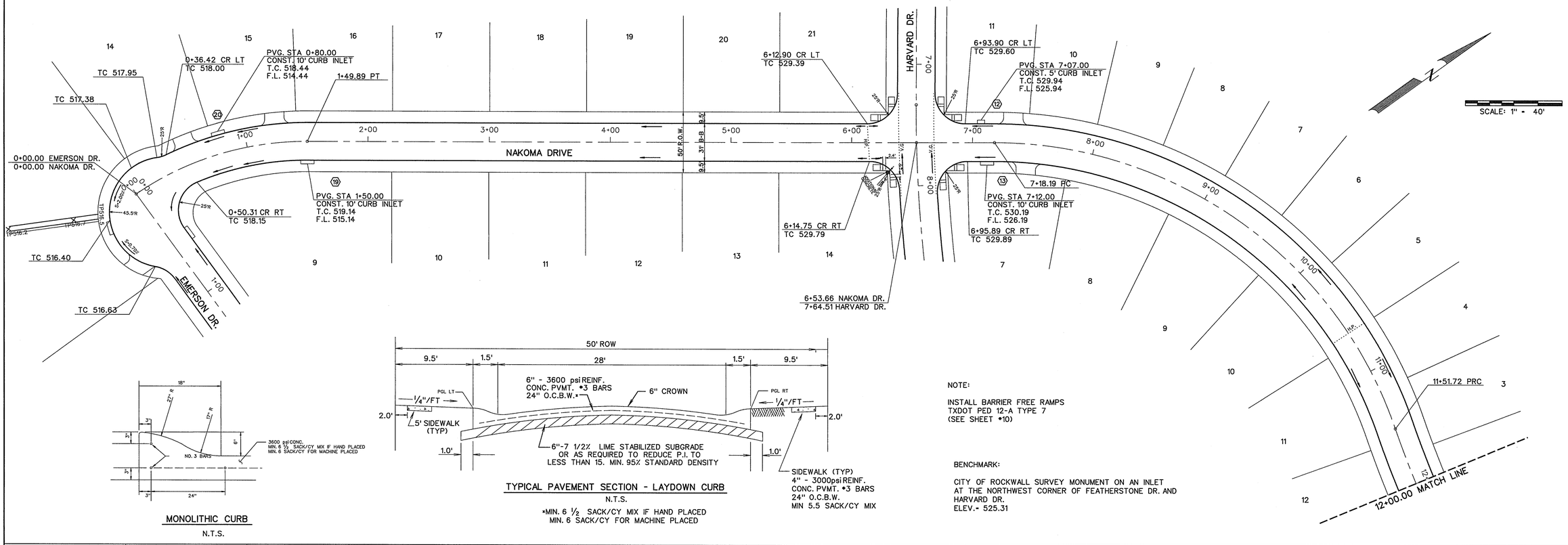
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

EMERSON DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	8 OF 31

...\dgn\15047_emerson.dgn 12/6/2016 12:21:46 PM



NOTE:

INSTALL BARRIER FREE RAMPS
TXDOT PED 12-A TYPE 7
(SEE SHEET #10)

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET
AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND
HARVARD DR.
ELEV.- 525.31

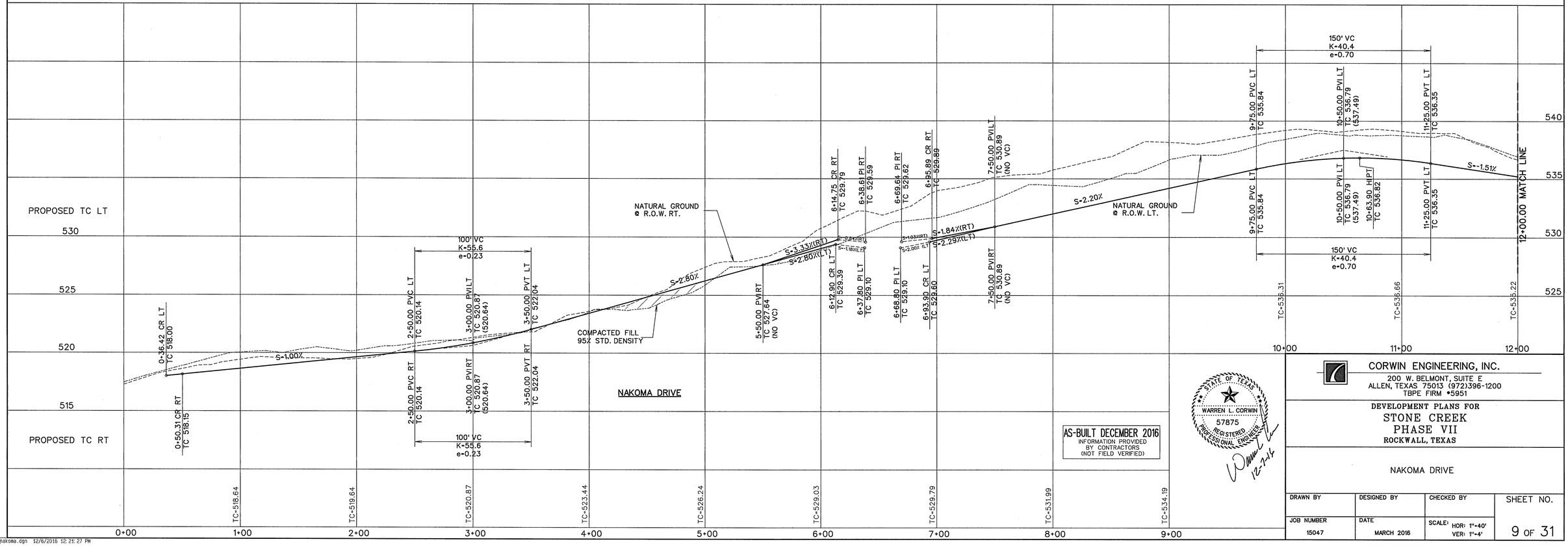
MONOLITHIC CURB

N.T.S.

TYPICAL PAVEMENT SECTION - LAYDOWN CURB

N.T.S.

*MIN. 6 ½ SACK/CY MIX IF HAND PLACED
MIN. 6 SACK/CY FOR MACHINE PLACED



AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

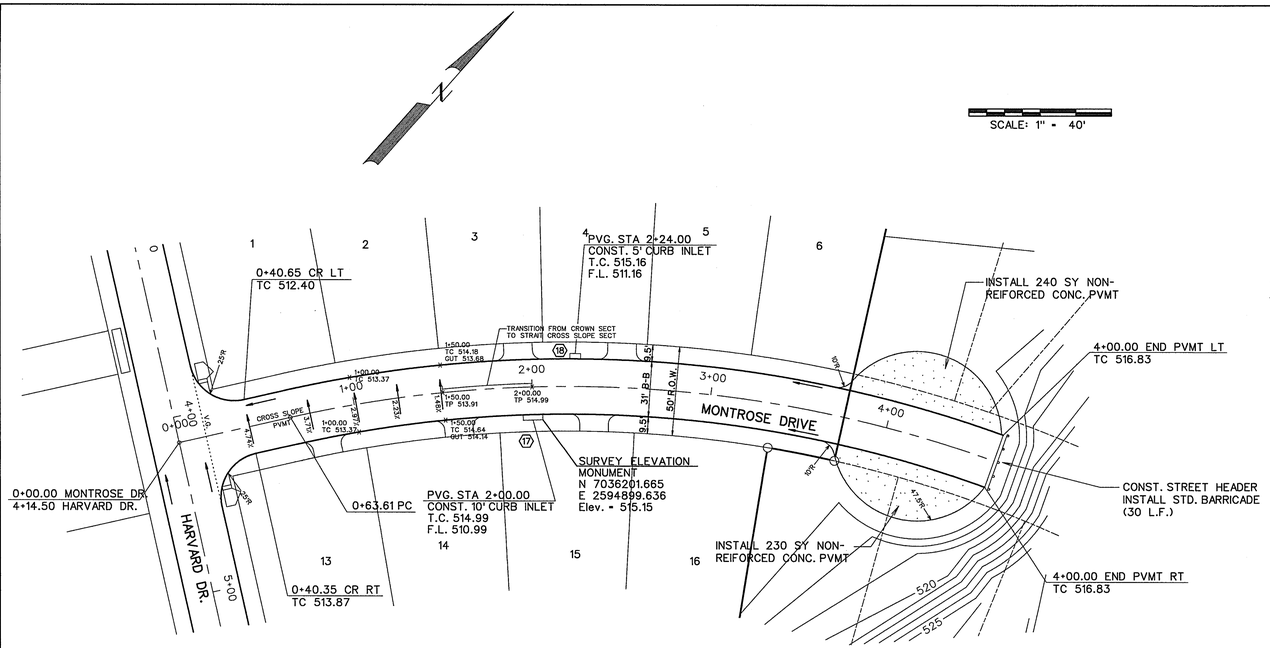
STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED
PROFESSIONAL ENGINEER
12-7-16

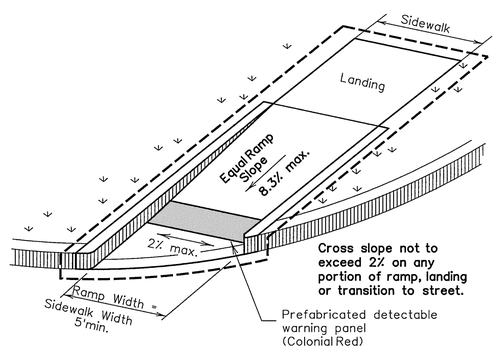
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

NAKOMA DRIVE

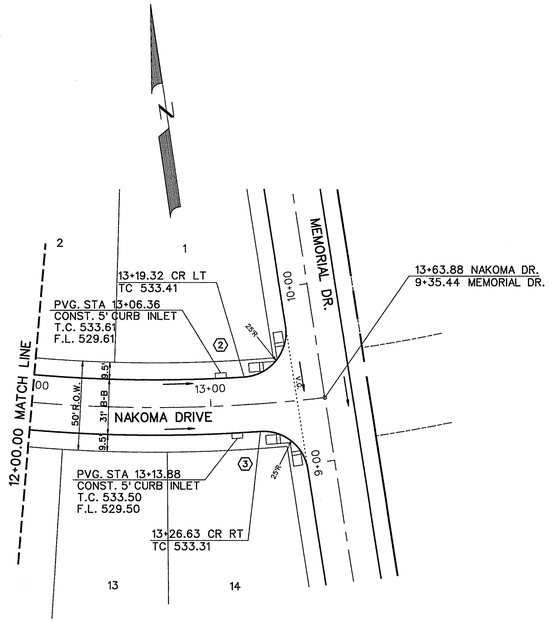
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	9 OF 31





(Sidewalk set back from curb)

BARRIER FREE RAMPS
TXDOT PED 12-A TYPE 7

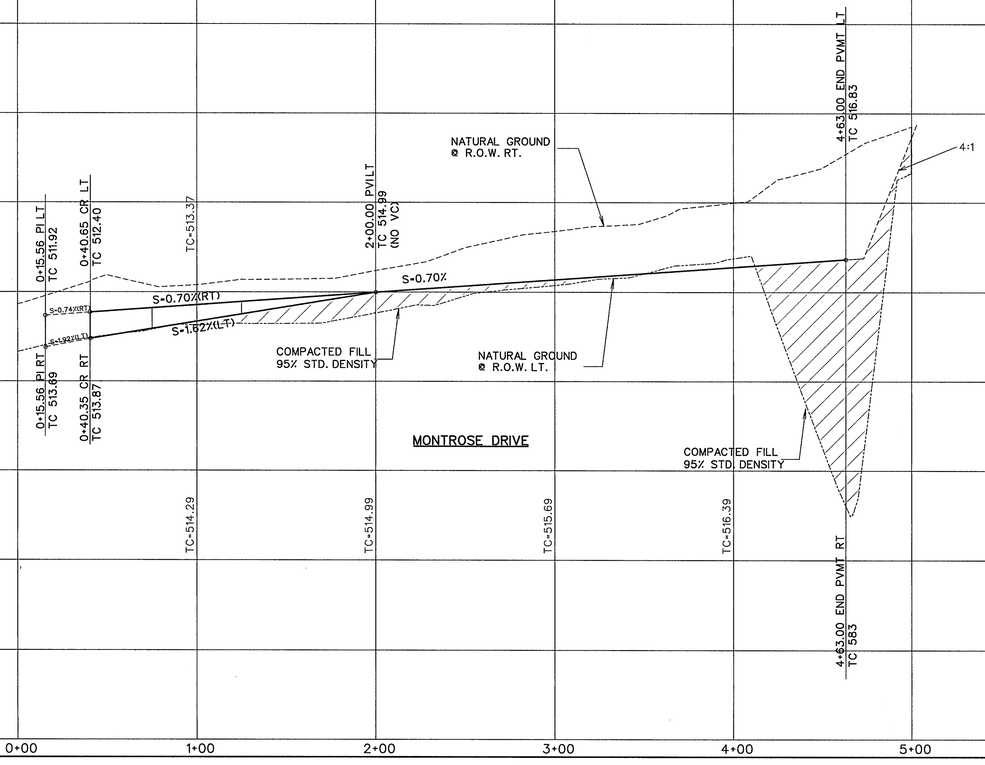


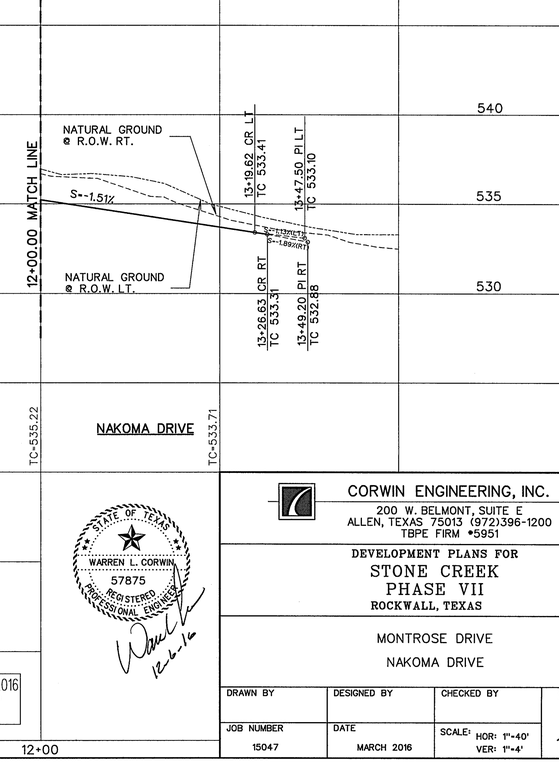
BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET
AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND
HARVARD DR.
ELEV.= 525.31

NOTE:

INSTALL BARRIER FREE RAMPS
TXDOT PED 12-A TYPE 7
(SEE SHEET #10)





AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED
PROFESSIONAL ENGINEER
12-6-16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

MONTROSE DRIVE
NAKOMA DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	10 OF 31

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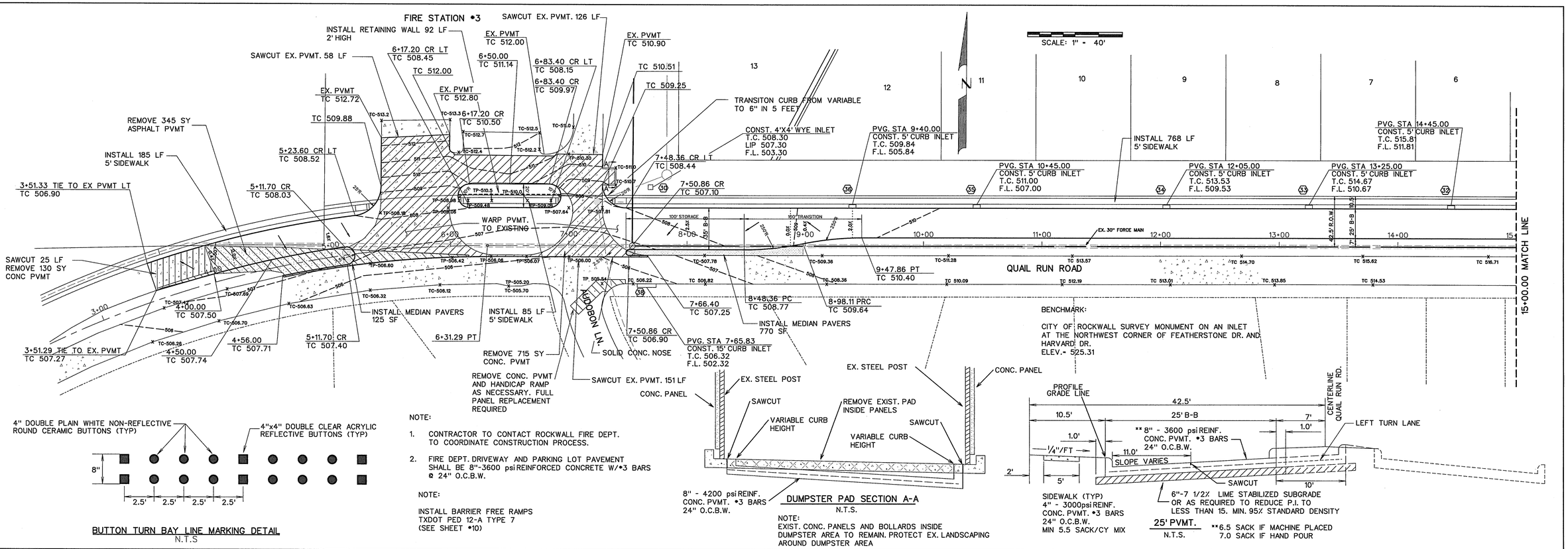


4" DOUBLE PLAIN WHITE NON-REFLECTIVE ROUND CERAMIC BUTTONS (TYP)

4"x4" DOUBLE CLEAR ACRYLIC REFLECTIVE BUTTONS (TYP)

8"

2.5' 2.5' 2.5' 2.5'

BUTTON TURN BAY LINE MARKING DETAIL
N.T.S

NOTE:

1. CONTRACTOR TO CONTACT ROCKWALL FIRE DEPT. TO COORDINATE CONSTRUCTION PROCESS.
2. FIRE DEPT. DRIVEWAY AND PARKING LOT PAVEMENT SHALL BE 8"-3600 psi REINFORCED CONCRETE W/#3 BARS @ 24" O.C.B.W.

NOTE:

INSTALL BARRIER FREE RAMPS TXDOT PED 12-A TYPE 7 (SEE SHEET #10)

DUMPSTER PAD SECTION A-A
N.T.S.

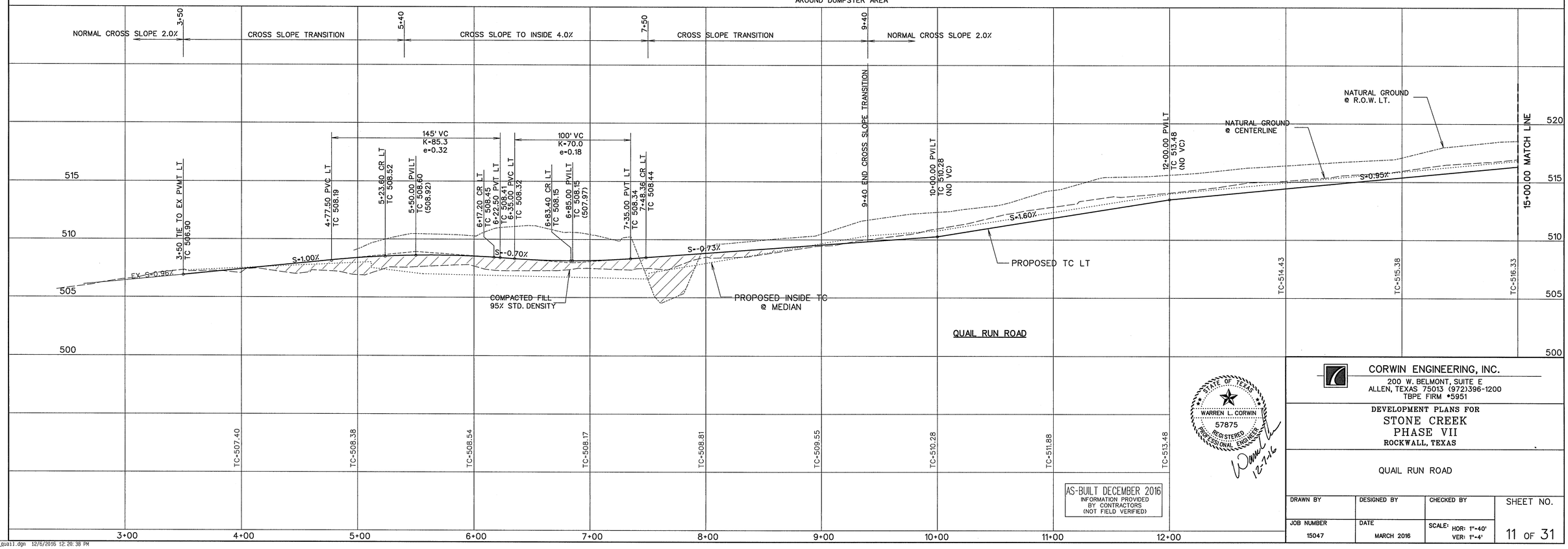
NOTE:
EXIST. CONC. PANELS AND BOLLARDS INSIDE DUMPSTER AREA TO REMAIN. PROTECT EX. LANDSCAPING AROUND DUMPSTER AREA

SIDEWALK (TYP)
4" - 3000psi REINF. CONC. PVMT. #3 BARS 24" O.C.B.W.
MIN 5.5 SACK/CY MIX

6"-7 1/2% LIME STABILIZED SUBGRADE OR AS REQUIRED TO REDUCE P.I. TO LESS THAN 15. MIN. 95% STANDARD DENSITY

25' PVMT.
N.T.S.

**6.5 SACK IF MACHINE PLACED
7.0 SACK IF HAND POUR



AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

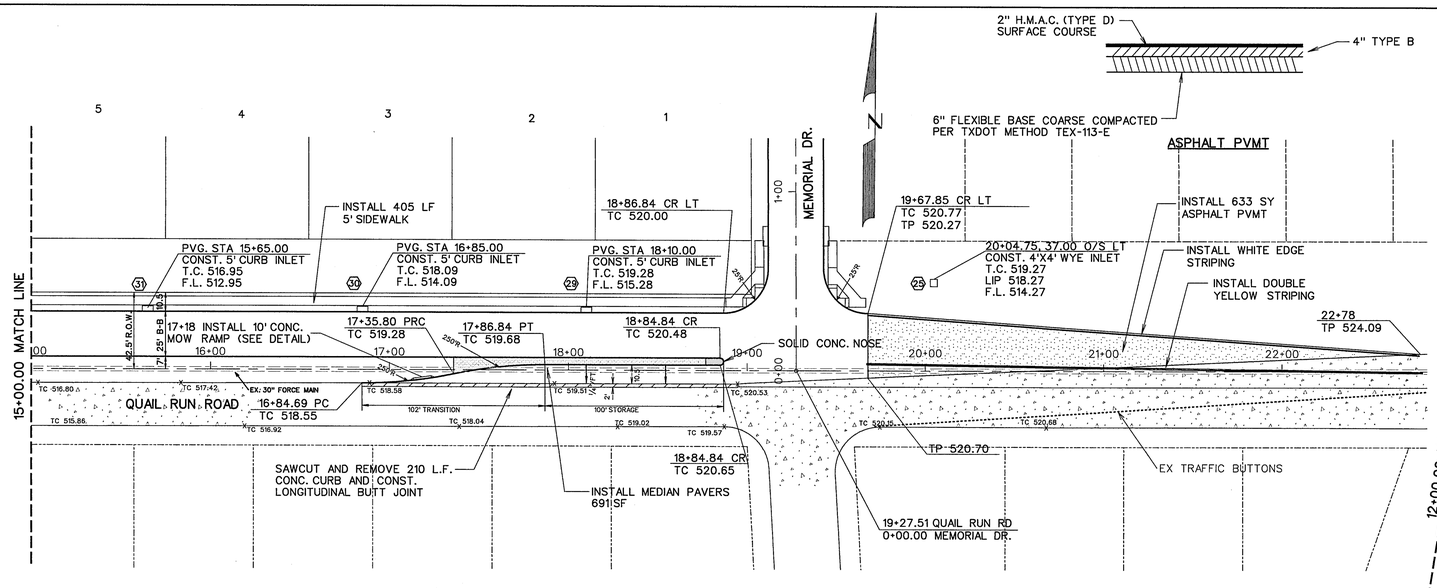
STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

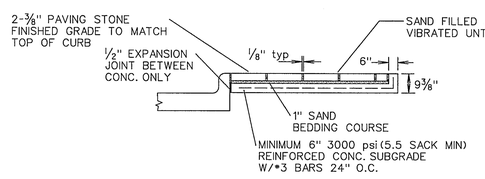
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

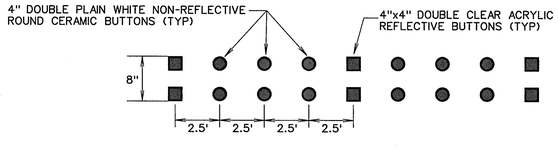
QUAIL RUN ROAD

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	11 OF 31

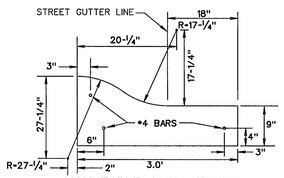




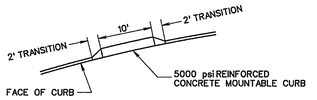
MEDIAN PAVING STONE DETAIL
N.T.S.



BUTTON TURN BAY LINE MARKING DETAIL
N.T.S

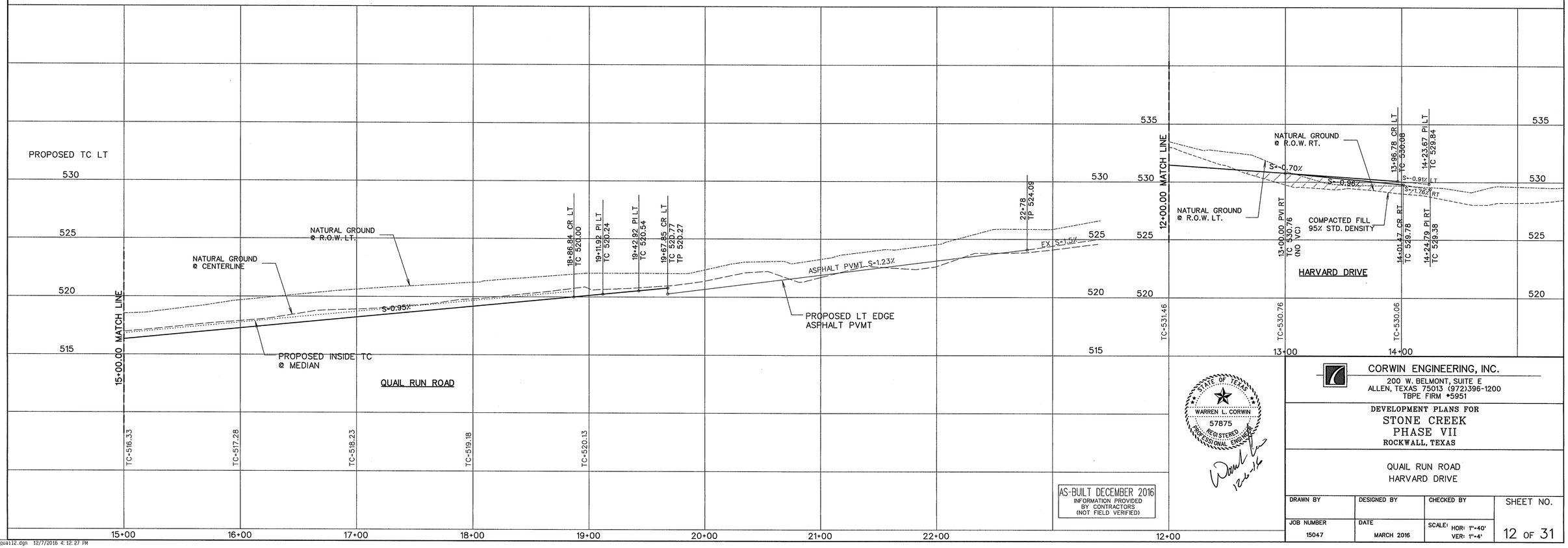


MOUNTABLE CURB SECTION MOW RAMP



MOW RAMP

NOTE:
INSTALL BARRIER FREE RAMPS TXDOT PED 12-A TYPE 7 (SEE SHEET #10)



AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

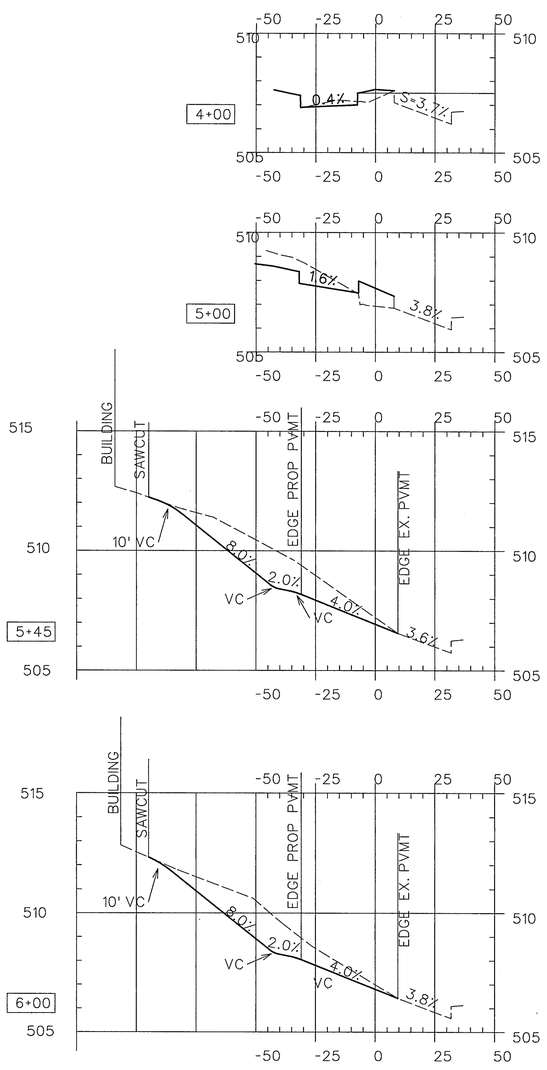
STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-20-16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

QUAIL RUN ROAD
HARVARD DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	12 OF 31



AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

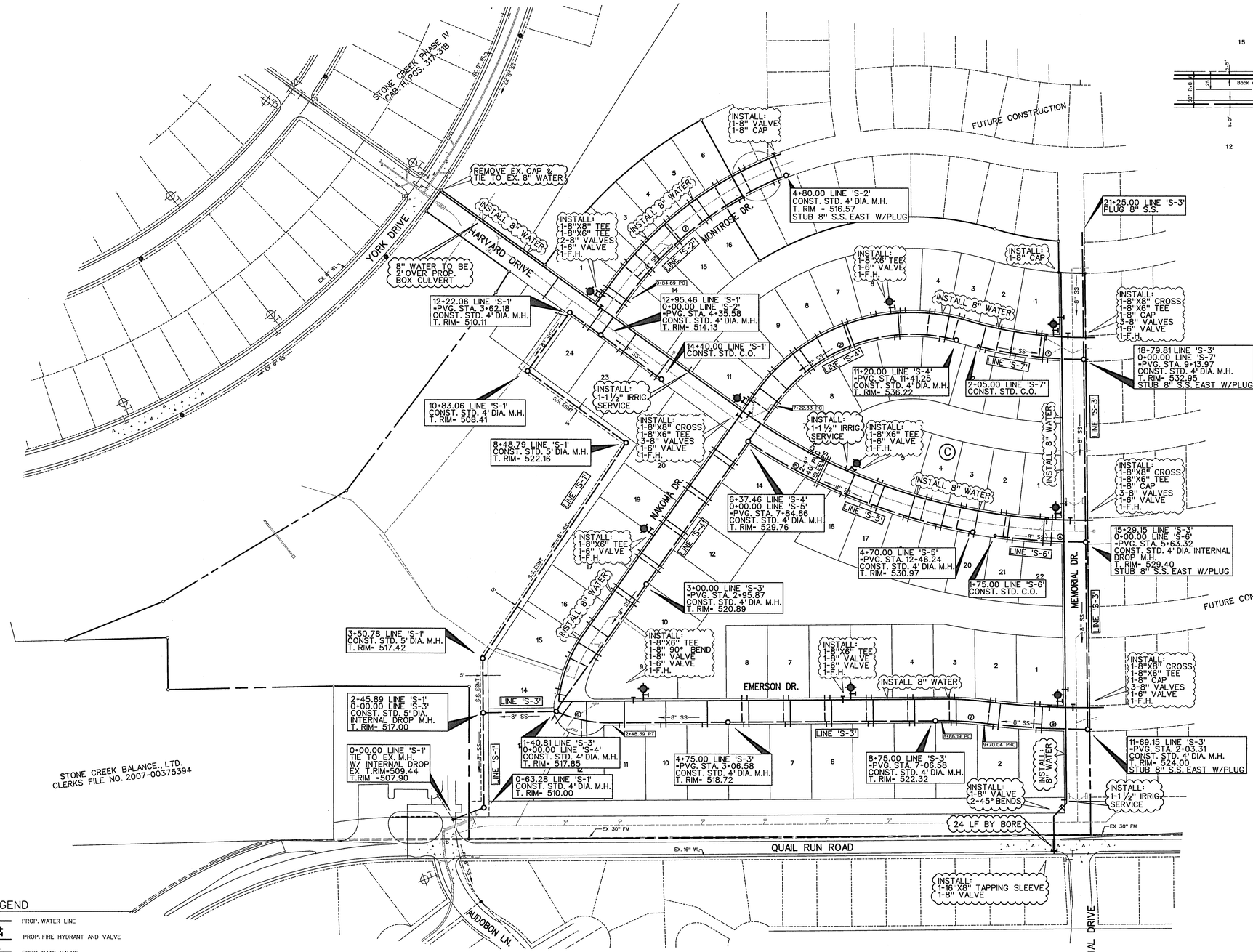
STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED
PROFESSIONAL ENGINEER
12-7-16

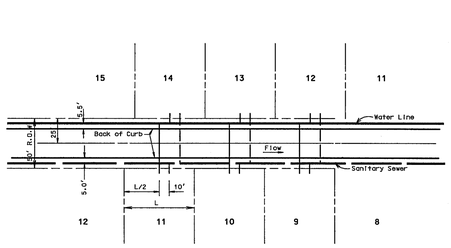
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

QUAIL RUN ROAD CROSS SECTIONS

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=30' VER: 1"=3'	12B OF 31





TYPICAL WATER & SEWER SERVICE LAYOUT
N.T.S.

SCALE: 1" = 100'

CURVE TABLE

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
1.	28°17'39"	679.00'	335.31'	171.15'
2.	69°15'19"	329.00'	397.67'	227.20'
3.	14°18'23"	821.00'	205.00'	103.04'
4.	08°33'46"	1171.00'	175.00'	87.66'
5.	22°59'48"	1171.00'	470.00'	238.21'
6.	24°39'13"	250.00'	107.57'	54.63'
7.	07°27'46"	644.00'	83.88'	42.00'
8.	07°27'05"	1531.00'	199.11'	99.69'

NOTE:

ALL WATER LINES TO BE CLASS 200 PIPE DR-14 C-900.

ALL SANITARY SEWER PIPE TO BE SDR 35 FOR 5-10' DEEP AND SDR 26 FOR 10' AND GREATER.

INSTALL BLUE "EMS" DISK ON WATER LINE AT EVERY 250' AND CHANGE IN DIRECTION, VALVE, AND SERVICE.

INSTALL GREEN "EMS" DISK ON SANITARY SEWER LINE EVERY 250' AND AT EVERY CHANGE IN DIRECTION, MANHOLE, CLEANOUT, AND SERVICE.

ALL MANHOLES TO BE RAVEN EPOXY LINED AND SEALED OR APPROVED EQUAL. TO BE SPARK AND PRESSURE TESTED.

SERVICE SCHEDULE		
TYPE	SIZE	NO.
SANITARY	4"	80
WATER	1"	80
IRRIGATION	1 ½"	3

LEGEND

- PROP. WATER LINE
- PROP. FIRE HYDRANT AND VALVE
- PROP. GATE VALVE
- PROP. FLUSH VALVE
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT AND VALVE
- PROP. SANITARY SEWER
- PROP. MANHOLE
- PROP. CLEANOUT
- EXIST. SANITARY SEWER
- EXIST. MANHOLE
- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.- 525.31

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK PHASE VII
ROCKWALL, TEXAS

WATER AND SANITARY SEWER PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=100'	13 OF 31

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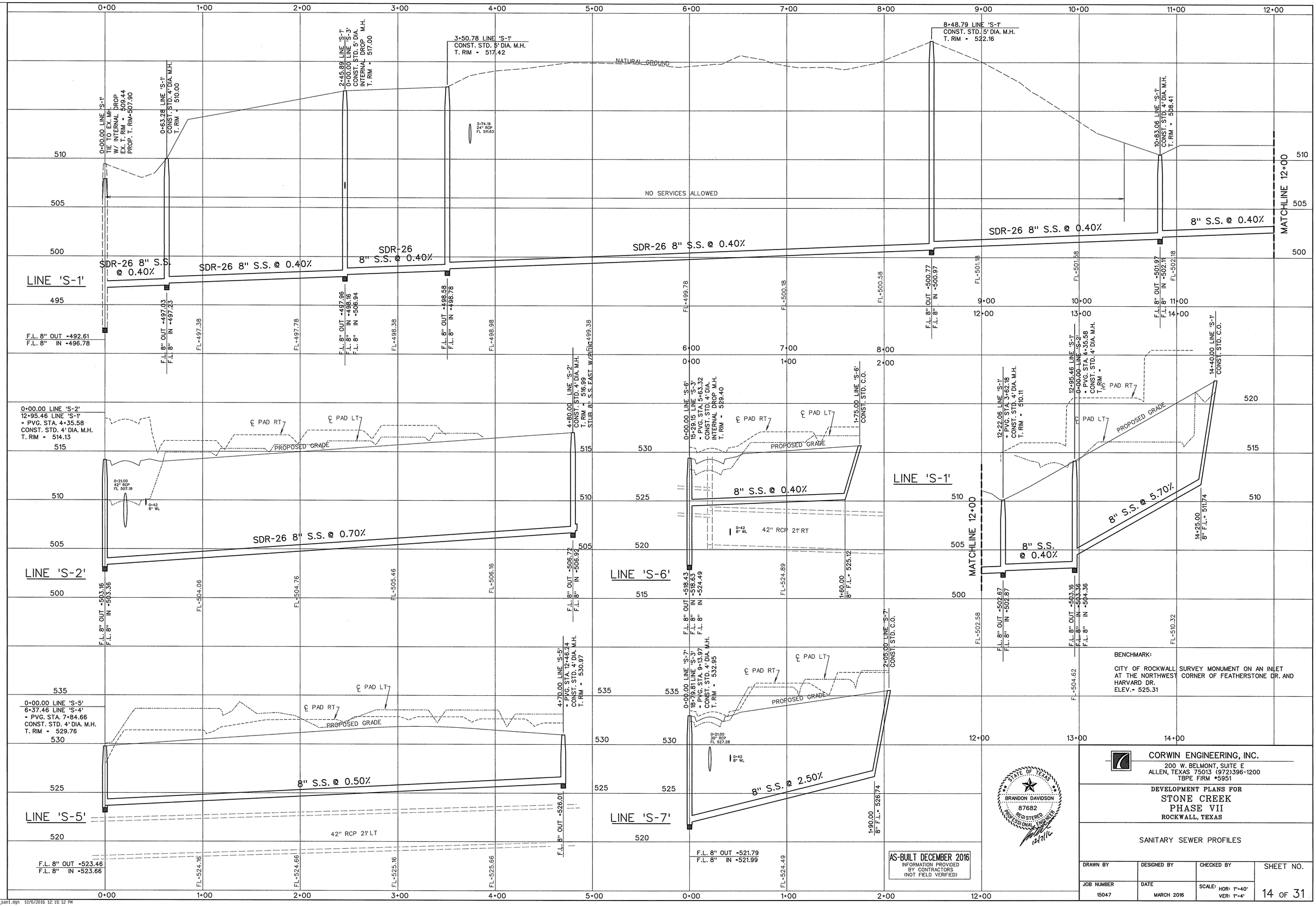
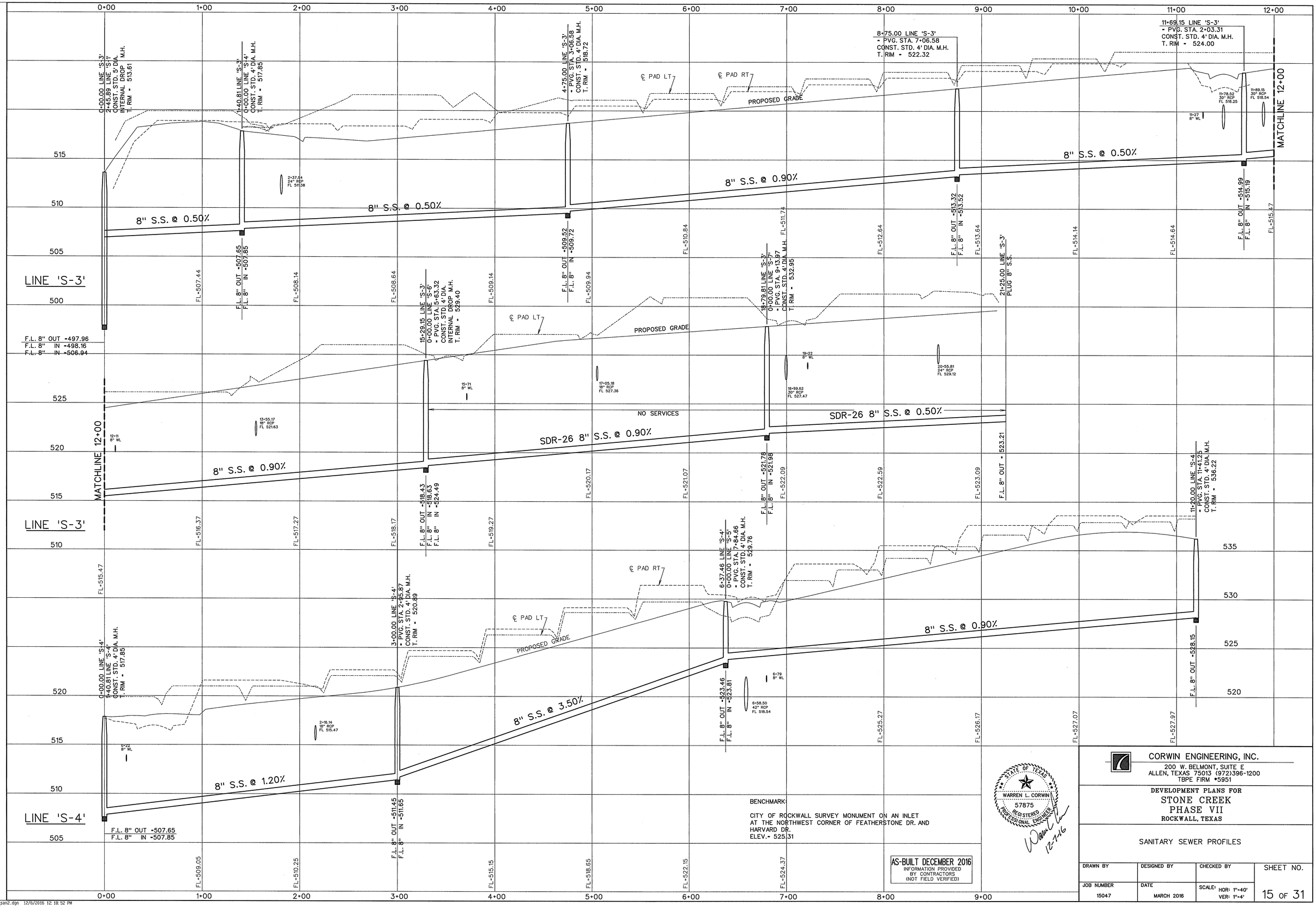


CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

SANITARY SEWER PROFILES

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	14 OF 31



BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.- 525.31

AS-BUILT DECEMBER 2016
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STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

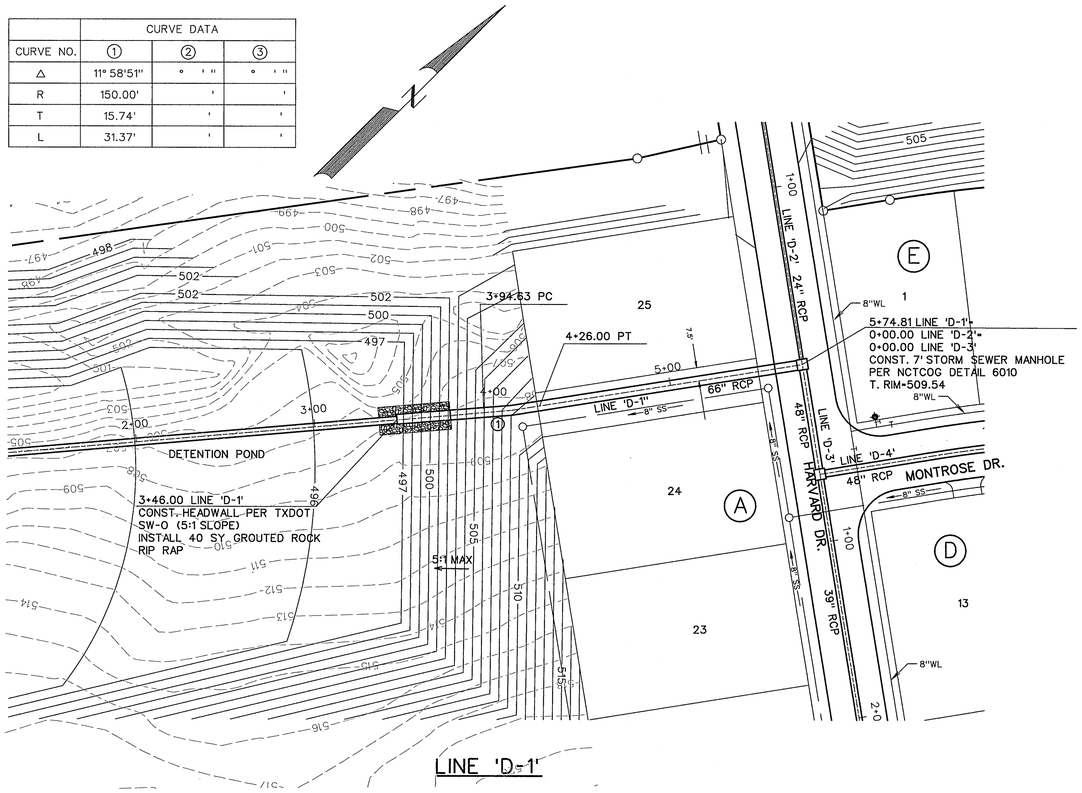
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

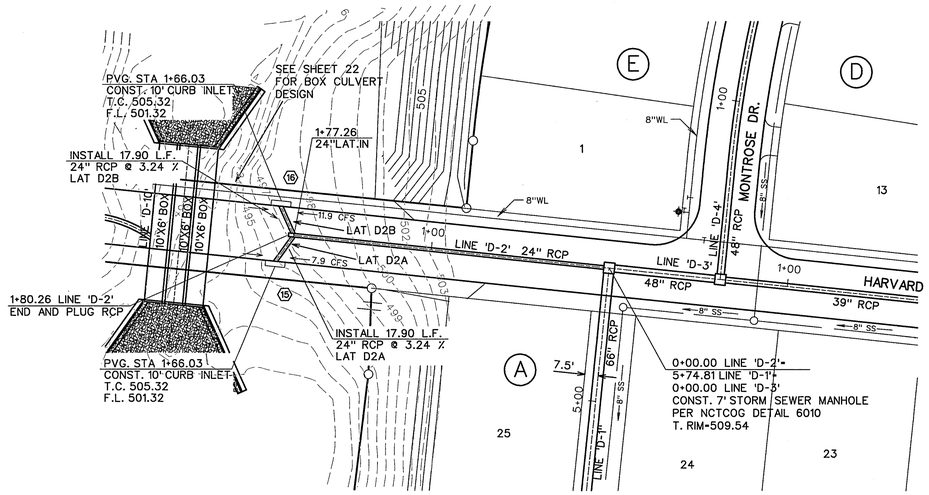
SANITARY SEWER PROFILES

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	15 OF 31

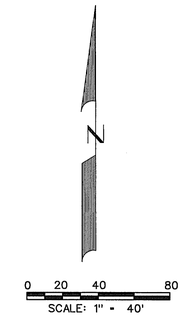
	CURVE DATA		
CURVE NO.	①	②	③
Δ	11° 58'51"	° ' "	° ' "
R	150.00'	'	'
T	15.74'	'	'
L	31.37'	'	'



LINE 'D-1'

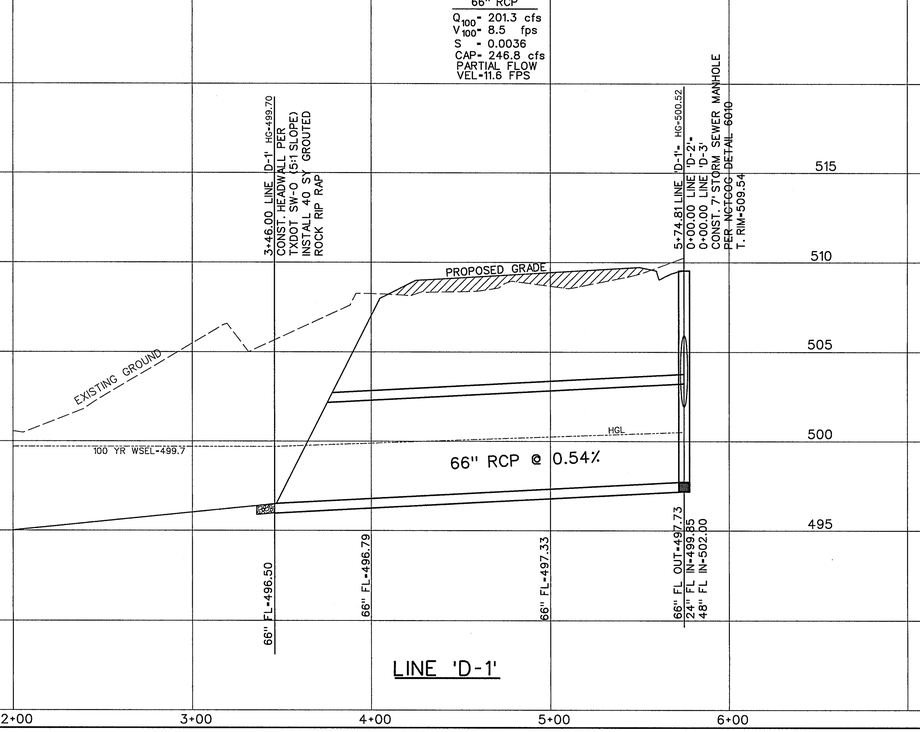


LINE 'D-2'

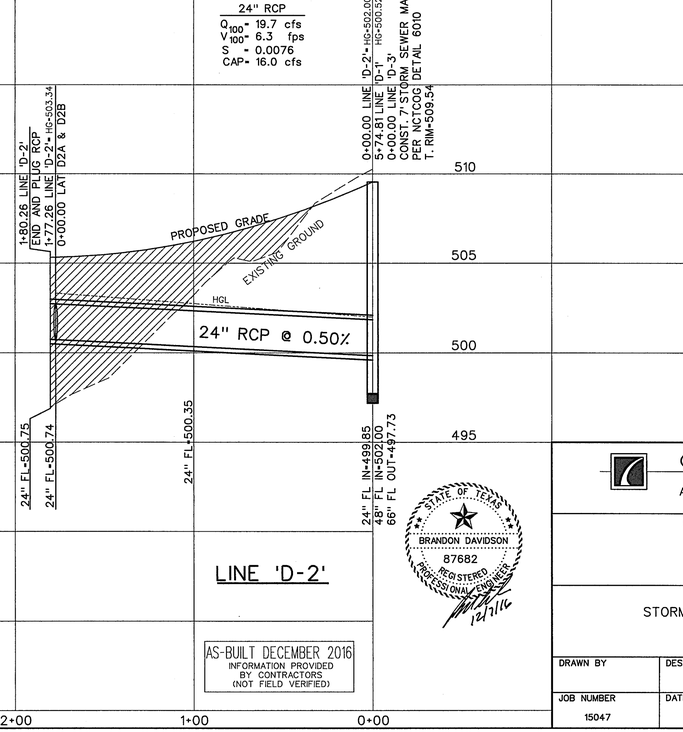


LEGEND

- (B) - BLOCK LABEL
- (19) - INLET NUMBER
- (1) - CURVE NUMBER
- SANITARY SEWER
- WATER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER



LINE 'D-1'



LINE 'D-2'

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

STORM SEWER PLAN AND PROFILES
LINES 'D-1' AND 'D-2'

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	16 OF 31

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CURVE DATA		
CURVE NO.	①	②
Δ	35° 11'17"	01° 44'38"
R	1150.00'	1150.00'
T	364.67'	35.00'
L	706.27'	17.50'

0 20 40 80
SCALE: 1" = 40'

0+00.00 LINE 'D-3'=
5+74.81 LINE 'D-1'=
0+00.00 LINE 'D-2'
CONST. 7' STORM SEWER MANHOLE
PER NCTCOG DETAIL 6010
T. RIM=509.54

MONTROSE DR.

LINE 'D-2'
24" RCP

LINE 'D-1'
66" RCP

LINE 'D-4'
48" RCP

8"WL

8" SS

0+62.33 LINE 'D-3'=
0+00.00 LINE 'D-4'
CONST. 6' STORM SEWER MANHOLE
PER NCTCOG DETAIL 6010
T. RIM=512.81

2+12.20
18"LAT.IN

CONST. 4'X4' WYE INLET
T.C. 522.00
LIP 521.00
F.L. 517.00

LAT D3E

INSTALL 34.34 L.F.
18" RCP @ 16.28%

PVG. STA 7+70.00
CONST. 5' CURB INLET
T.C. 529.94
F.L. 525.94

INSTALL 32.82 L.F.
18" RCP @ 16.33%

LAT D3D

0+10.00
30° BEND

3+81.29 PC

LINE 'D-3'
39" RCP

NAKOMA DR.

PVG. STA 7+12.00
CONST. 10' CURB INLET
T.C. 530.19
F.L. 526.19

LAT D3C

INSTALL 60.85 L.F.
18" RCP @ 15.92%

0+25.62 LAT D3C=
0+00.00 LAT D3D

3+99.54
18"LAT.IN

HARVARD DR.

PVG. STA 13+81.00
CONST. 10' CURB INLET
T.C. 530.20
F.L. 526.20

INSTALL 17.94 L.F.
18" RCP @ 29.54%
10+19.73
18"LAT.IN

LAT D3B

10+28.01
18"LAT.IN

INSTALL 17.86 L.F.
18" RCP @ 27.72%

SURVEY ELEVATION
MONUMENT
N 7035636.305
E 2595625.641
Elev. = 529.90

LAT D3A

PVG. STA 13+89.00
CONST. 5' CURB INLET
T.C. 529.91
F.L. 525.91

MEMORIAL DR.

LINE 'D-5'
30" RCP

29.5 CFS ULTIMATE
20.3 CFS INTERIM

11+22.57 LINE 'D-3'
CONST. 4' WYE INLET
TC=528.86
LIP=527.78
FL 521.68

10+87.57 LINE 'D-3'=
0+00.00 LINE 'D-5'
CONST. 5' STORM
SEWER MANHOLE
PER NCTCOG DETAIL 6010
T. RIM=529.60

LEGEND

- (B) - BLOCK LABEL
- (19) - INLET NUMBER
- (1) - CURVE NUMBER
- SANITARY SEWER
- WATER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER

LINE 'D-3'

39" RCP
Q_{100}= 73.2 cfs
V_{100}= 8.8 fps
S = 0.0079
CAP= 69.1 cfs

39" RCP
Q_{100}= 70.6 cfs
V_{100}= 8.5 fps
S = 0.0073
CAP= 69.1 cfs

39" RCP
Q_{100}= 90.5 cfs
V_{100}= 10.9 fps
S = 0.0120
CAP= 136.2 cfs
PARTIAL FLOW
VEL=17.6 FPS

39" RCP
Q_{100}= 82.3 cfs
V_{100}= 9.9 fps
S = 0.0099
CAP= 136.2 cfs
PARTIAL FLOW
VEL=17.3 FPS

39" RCP
Q_{100}= 76.9 cfs
V_{100}= 9.3 fps
S = 0.0087
CAP= 69.1 cfs

30" RCP
Q_{100}= 20.5 cfs
V_{100}= 4.2 fps
S = 0.0025
CAP= 29.0 cfs

48" RCP
Q_{100}= 182.5 cfs
V_{100}= 14.5 fps
S = 0.0161
CAP= 133.2 cfs

EXISTING GROUND

PROPOSED GRADE

HGL

HGL-NORMAL DEPTH

8" S.S. 21' RT

39" RCP @ 2.72%

39" RCP @ 0.70%

30" RCP
@ 0.50%

48" RCP
@ 0.86%

0+00.00 LINE 'D-3'= HG=500.52
5+74.81 LINE 'D-1'= HG=506.00
0+00.00 LINE 'D-2'
CONST. 7' STORM SEWER MANHOLE
PER NCTCOG DETAIL 6010
T. RIM=509.54

0+62.33 LINE 'D-3'= HG=507.01
0+00.00 LINE 'D-4' HG=509.96
CONST. 6' STORM SEWER MANHOLE
PER NCTCOG DETAIL 6010
T. RIM=512.81

0+83.33 LINE 'D-3'=
0+21.00 LINE 'S-2'

2+12.20 LINE 'D-3'= HG=511.76
0+00.00 LAT D3E HG=514.24

3+91.33 LINE 'D-3'=
PROP. 8" WATER

3+99.54 LINE 'D-3'= HG=516.11
0+00.00 LAT D3C HG=518.95

4+02.54 LINE 'D-3'
PVI

4+33.34 LINE 'D-3'=
6+58.47 LINE 'S-4'

10+19.73 LINE 'D-3'= HG=524.33
0+00.00 LAT D3B HG=525.06

10+28.01 LINE 'D-3'= HG=525.13
0+00.00 LAT D3A HG=525.77

10+66.56 LINE 'D-3'=
PROP. 8" WATER

10+87.57 LINE 'D-3'= HG=526.21
0+00.00 LINE 'D-5' HG=527.06
CONST. 5' STORM SEWER MANHOLE
PER NCTCOG DETAIL 6010
T. RIM=529.60

11+08.57 LINE 'D-3'=
15+50.15 LINE 'S-3'

11+22.57 LINE 'D-3' HG=527.15
END RCP @ INLET HG=527.49

66" FL OUT=497.73
48" FL IN=502.00
24" FL IN=499.85

48" FL OUT=502.54
48" FL IN=506.20
39" FL IN=506.46
8" FL=507.03
39" FL=503.51
39" FL=507.48

39" FL=510.53
18" FL=511.41
39" FL=510.20
39" FL=512.92
39" FL=515.40
8" FL=524.30
39" FL=515.62
18" FL=516.50
39" FL=515.70
39" FL=515.92
8" FL=524.00
39" FL=516.36
39" FL=517.08
39" FL=517.78
39" FL=518.48
39" FL=519.18
39" FL=519.88
39" FL=520.02
18" FL=520.90
39" FL=520.08
18" FL=520.96
39" FL=520.35
8" FL=525.05
39" FL OUT=520.50
30" FL IN EAST=521.50
30" FL IN NORTH=523.60
30" FL=521.56
30" FL=521.61
8" FL=518.82
30" FL=521.68

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00

AS-BUILT DECEMBER 2016
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STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED
PROFESSIONAL ENGINEER
12/6/16

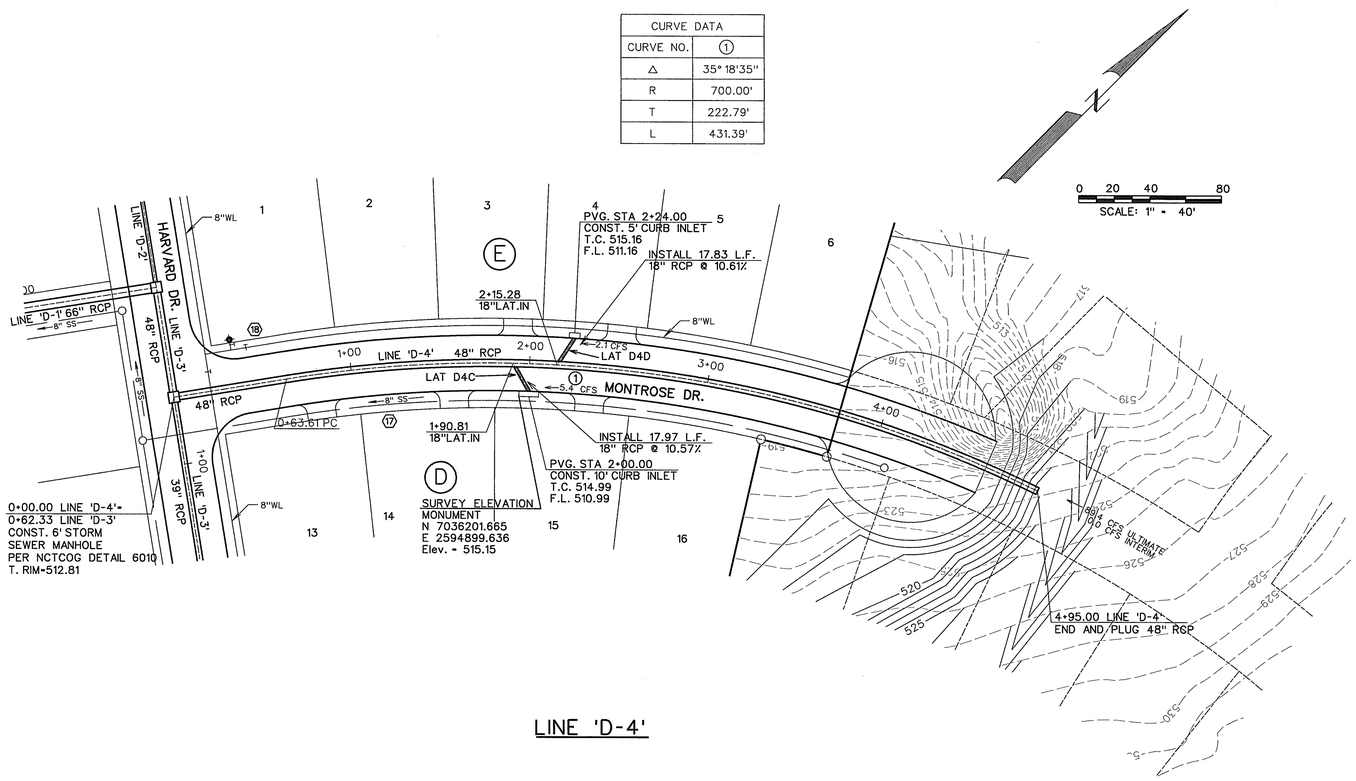
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

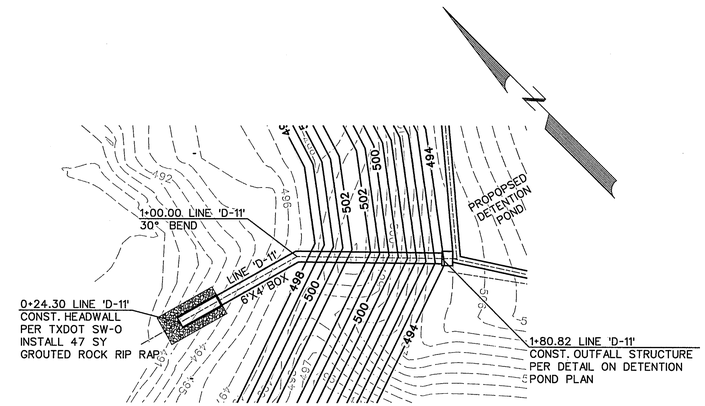
STORM SEWER PLAN AND PROFILE
LINE 'D-3'

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	17 OF 31

CURVE DATA	
CURVE NO.	①
Δ	35° 18' 35"
R	700.00'
T	222.79'
L	431.39'



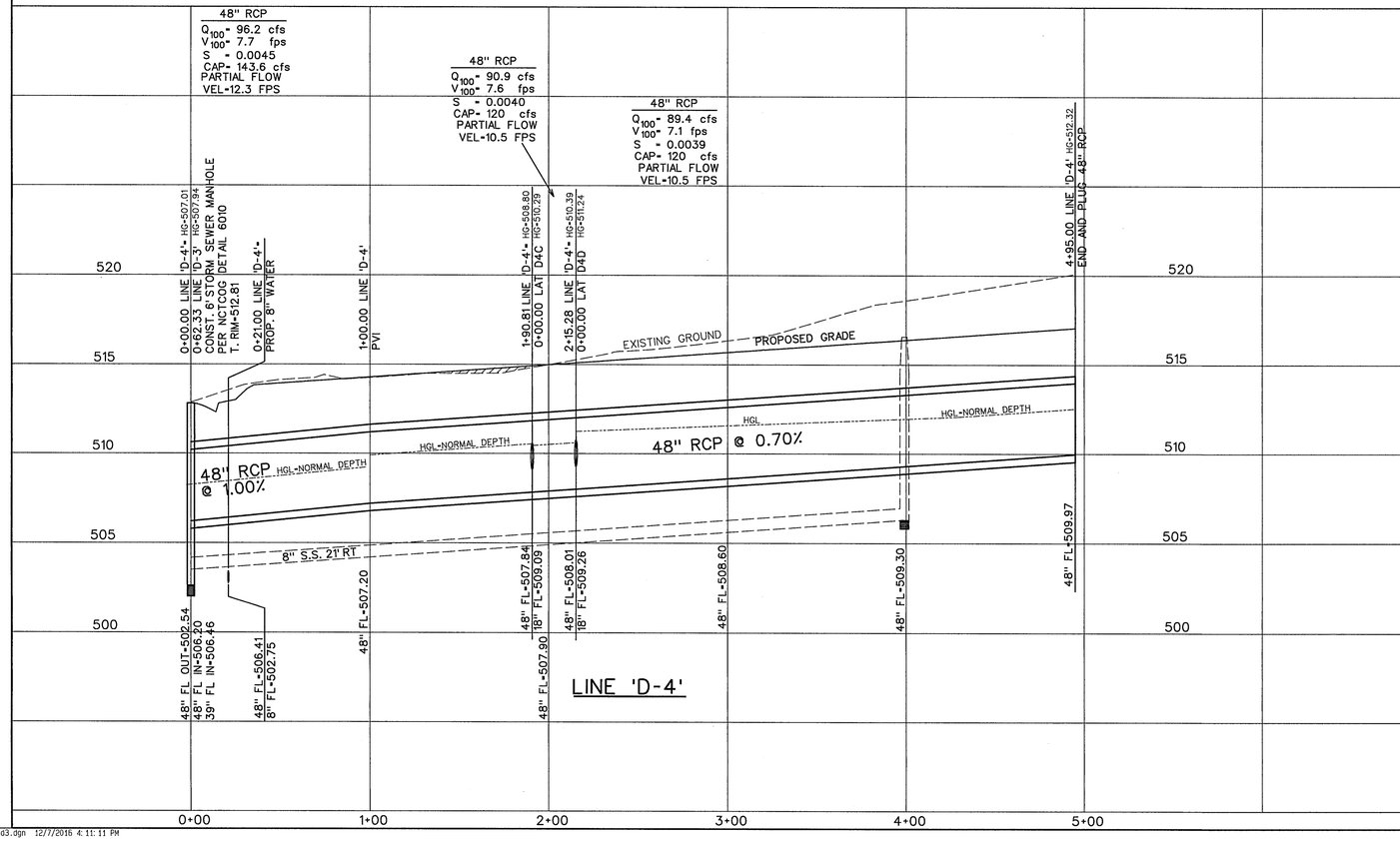
LINE 'D-4'



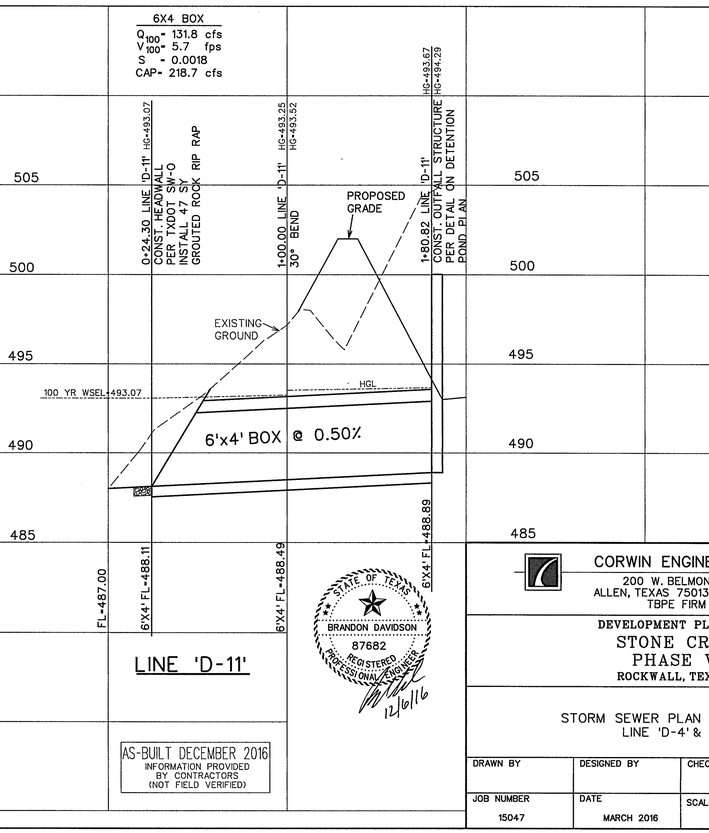
LINE 'D-11'

LEGEND

- Ⓑ - BLOCK LABEL
- ⑲ - INLET NUMBER
- ① - CURVE NUMBER
- —○— - SANITARY SEWER
- - WATER
- ═══ - PROPOSED STORM SEWER
- ZZZZZ - EXISTING STORM SEWER



LINE 'D-4'



LINE 'D-11'

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

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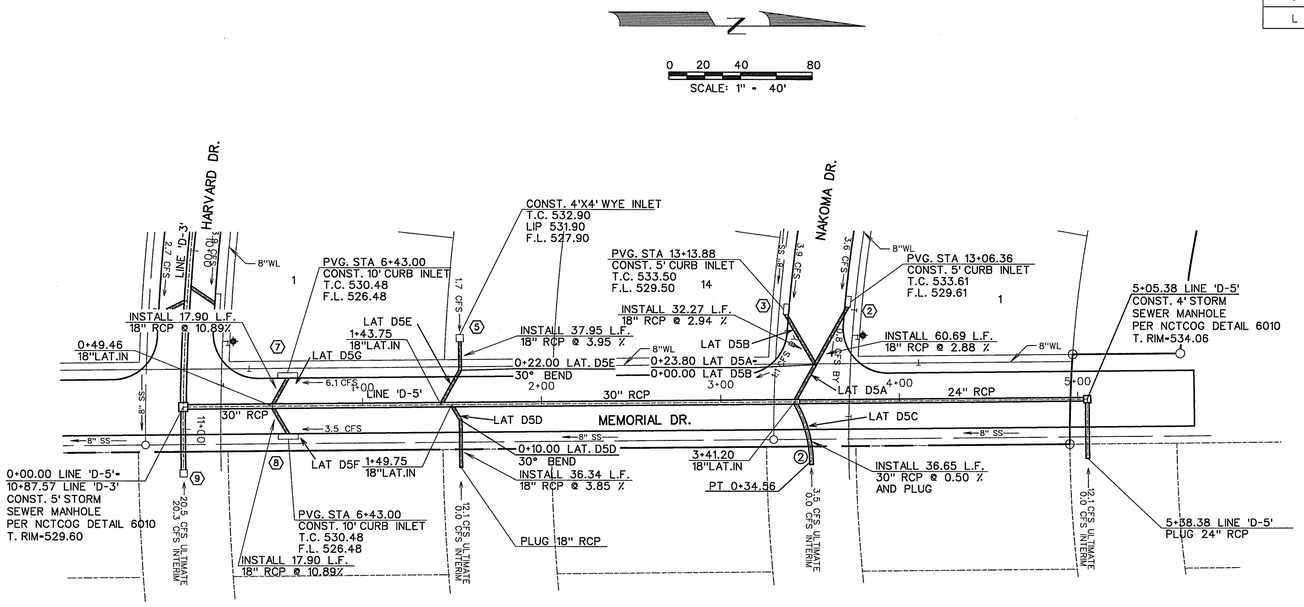
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

STORM SEWER PLAN AND PROFILE
LINE 'D-4' & D-11

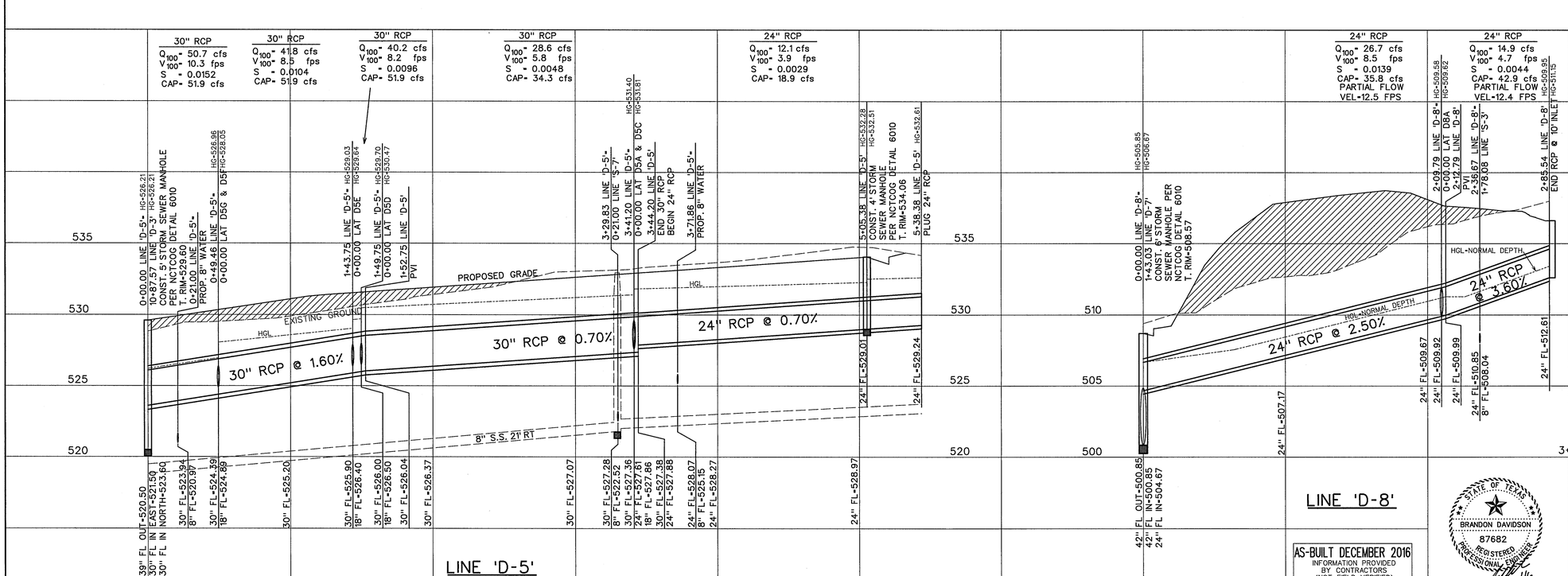
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	18 OF 31

	CURVE DATA		
CURVE NO.	①	②	③
Δ	61° 55'29"	30° 27'45"	° ' "
R	65.00'	65.00'	'
T	39.00'	17.70'	'
L	70.25'	34.56'	'



LINE 'D-5'

LINE 'D-8'



LINE 'D-5'

LINE 'D-8'

AS-BUILT DECEMBER 2016
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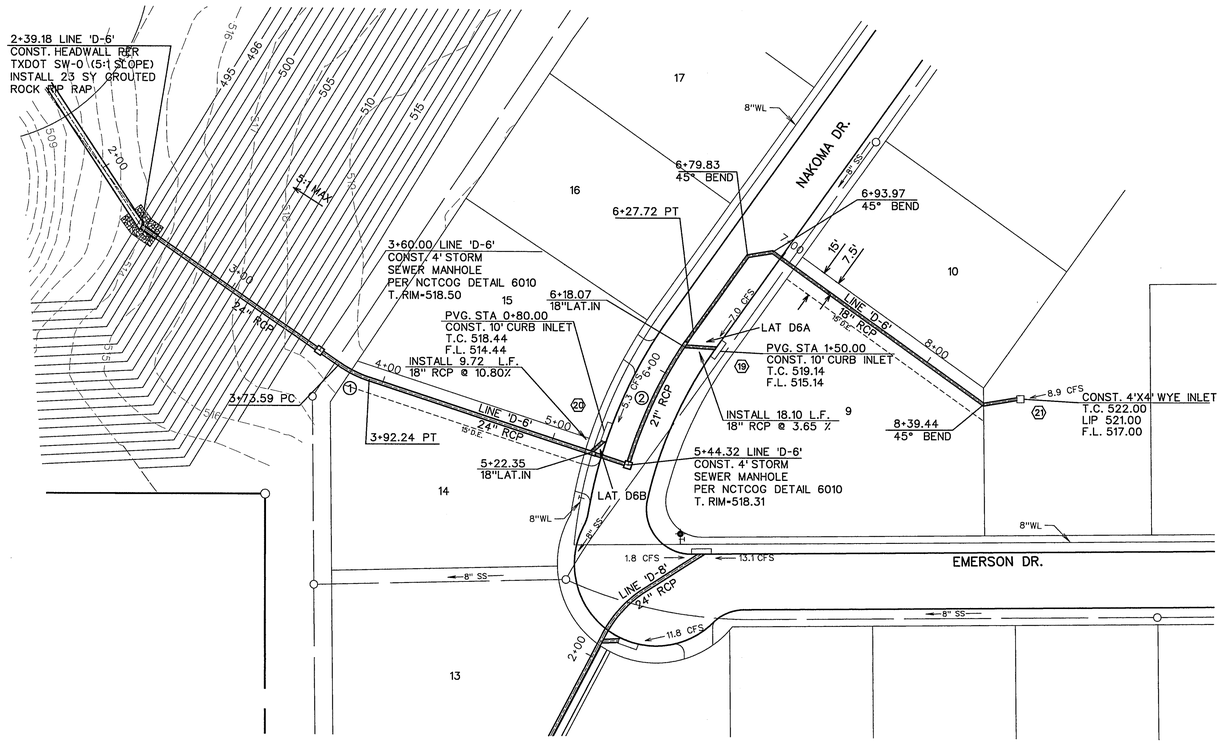
DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

STORM SEWER PLAN AND PROFILE
LINES 'D-5' & 'D-8'

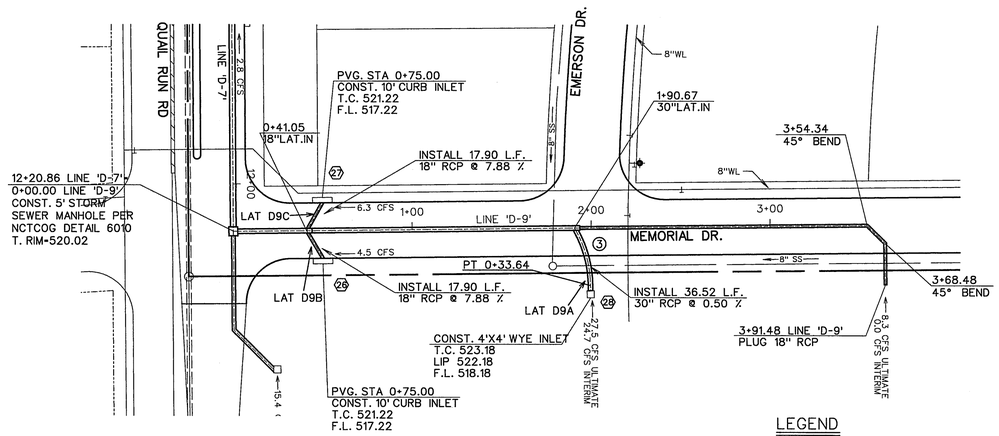
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	19 OF 31



LINE 'D-6'

CURVE DATA			
CURVE NO.	①	②	③
Δ	16° 26'23"	19° 06'46"	29° 39'00"
R	65.00'	250.00'	65.00'
T	9.39'	42.09'	17.20'
L	18.65'	83.39'	33.64'

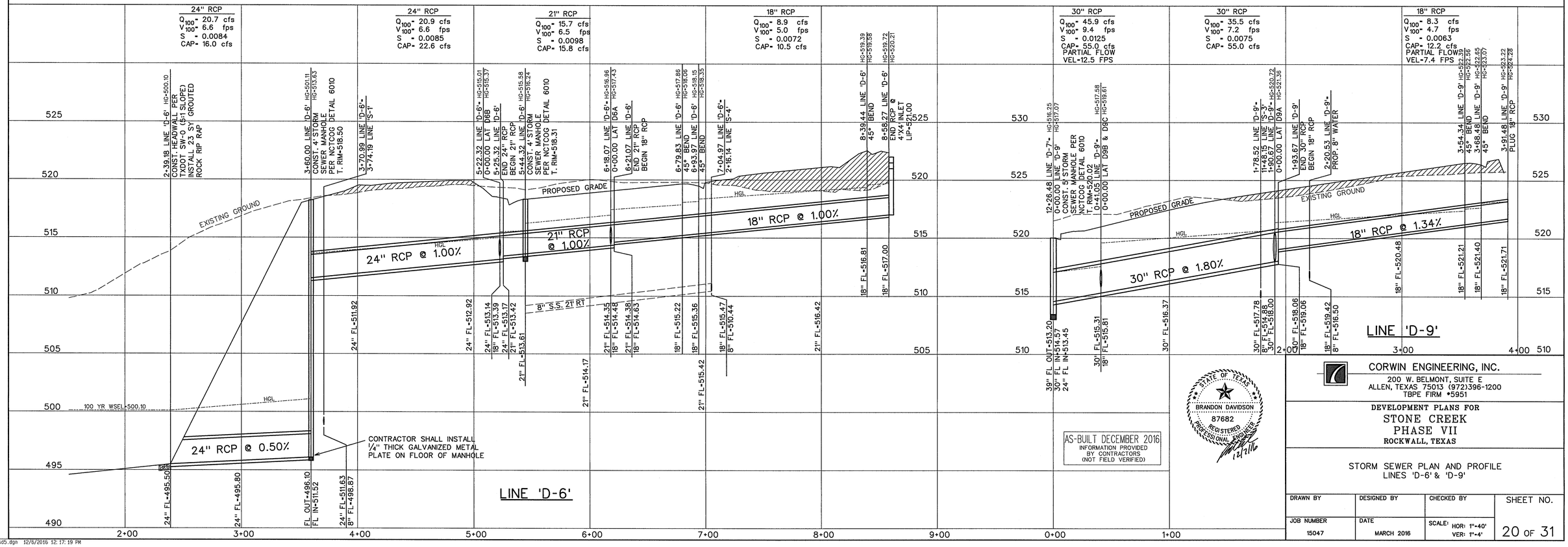
0 20 40 80
SCALE: 1" = 40'



LINE 'D-9'

LEGEND

- (B) - BLOCK LABEL
- (19) - INLET NUMBER
- (1) - CURVE NUMBER
- SANITARY SEWER
- WATER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER



LINE 'D-6'

LINE 'D-9'

AS-BUILT DECEMBER 2016
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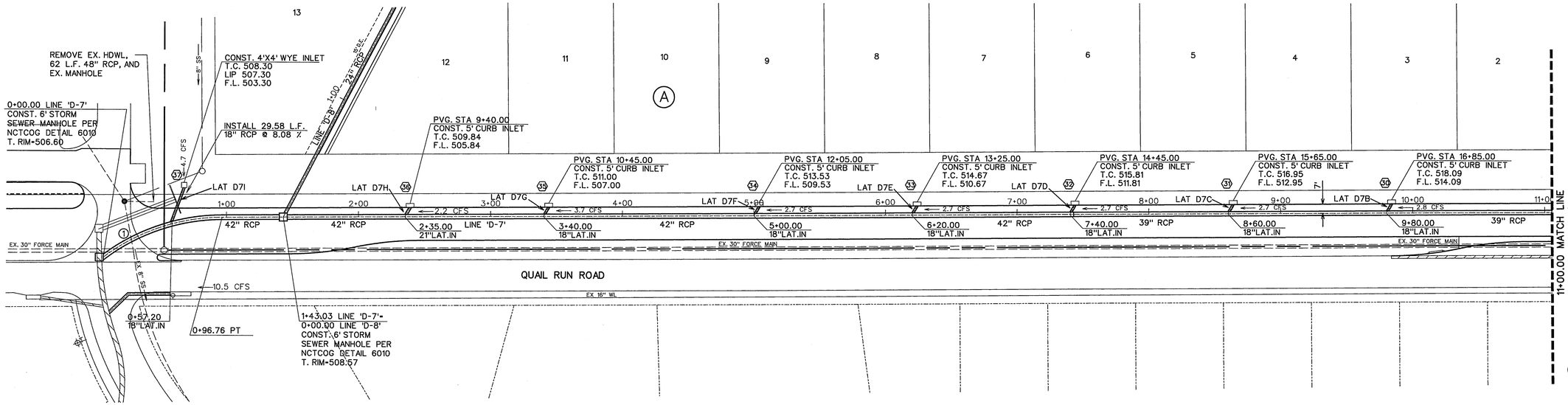
DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

STORM SEWER PLAN AND PROFILE
LINES 'D-6' & 'D-9'

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	20 OF 31

CURVE DATA	
CURVE NO.	①
Δ	30° 47'21"
R	150.00'
T	41.30'
L	80.60'



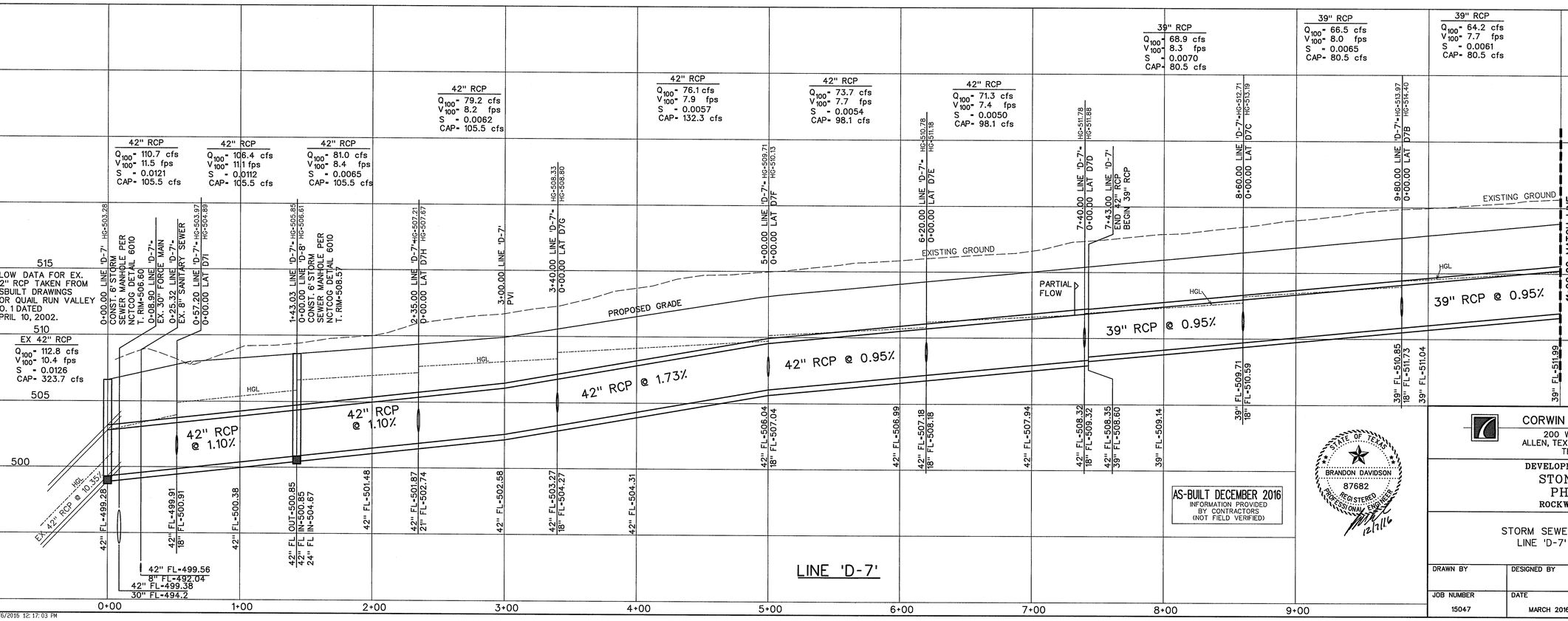
LINE 'D-7'

0 20 40 80
SCALE: 1" = 40'

N

LEGEND

- (B) - BLOCK LABEL
- (10) - INLET NUMBER
- (1) - CURVE NUMBER
- SANITARY SEWER
- WATER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER



LINE 'D-7'

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

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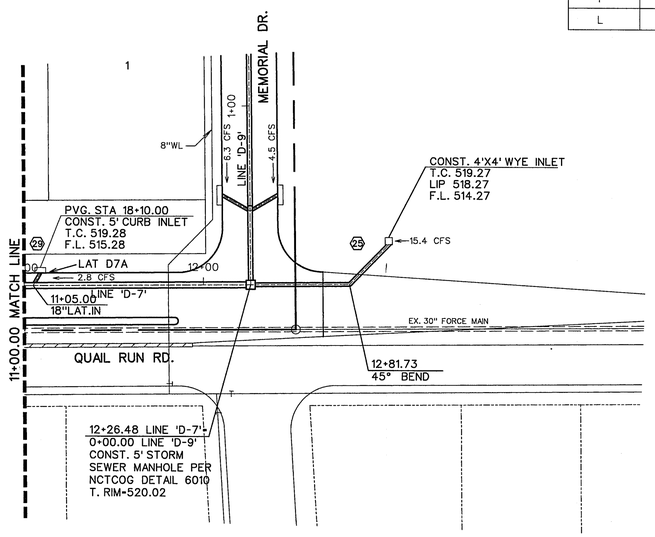
DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

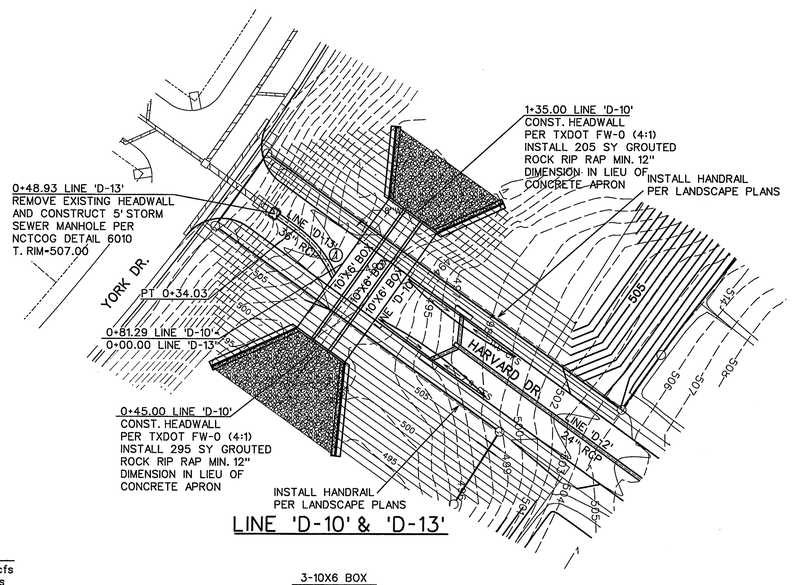
STORM SEWER PLAN AND PROFILE
LINE 'D-7' STA. 0+00 - 11+00

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	21 OF 31

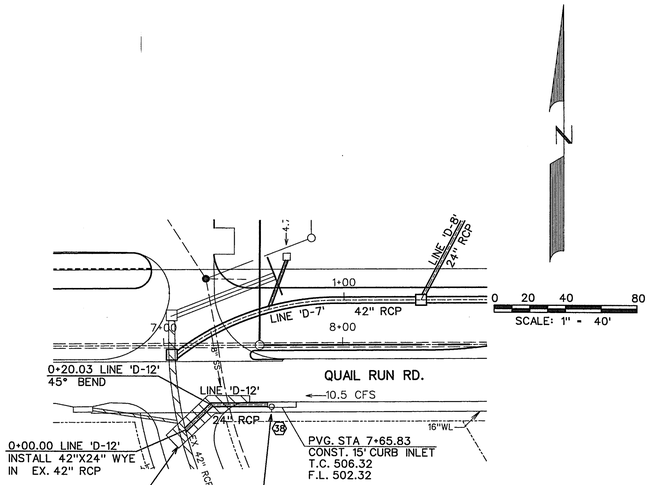
STORM SEWER CURVE DATA	
CURVE NO.	①
Δ	30° 00'00"
R	65.00'
T	17.42'
L	34.03'



LINE 'D-7'



LINE 'D-10' & 'D-13'



LINE 'D-12'

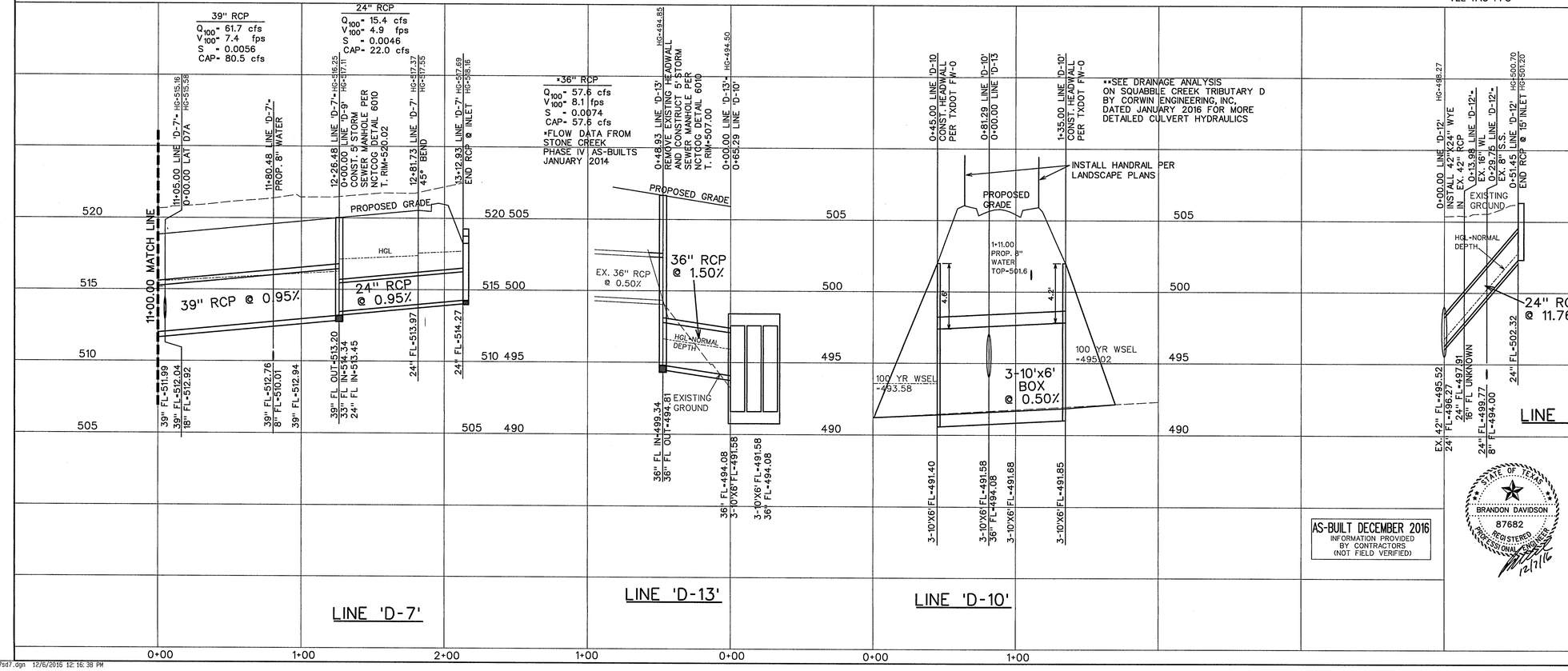
LEGEND

- (B) - BLOCK LABEL
- (10) - INLET NUMBER
- (1) - CURVE NUMBER
- SANITARY SEWER
- WATER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER

36" RCP
Q_{100}= 57.6 cfs
V_{100}= 8.1 fps
S = 0.0074
CAP= 81.7 cfs
PARTIAL FLOW
VEL=12.5 FPS

3-10X6 BOX
Q_{100}= 458.9 cfs
V_{100}= 4.0 fps
S = 0.0006

24" RCP
Q_{100}= 10.5 cfs
V_{100}= 3.3 fps
S = 0.0022
CAP= 77.6 cfs
PARTIAL FLOW
VEL=17.3 FPS



LINE 'D-7'

LINE 'D-13'

LINE 'D-10'

LINE 'D-12'

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED
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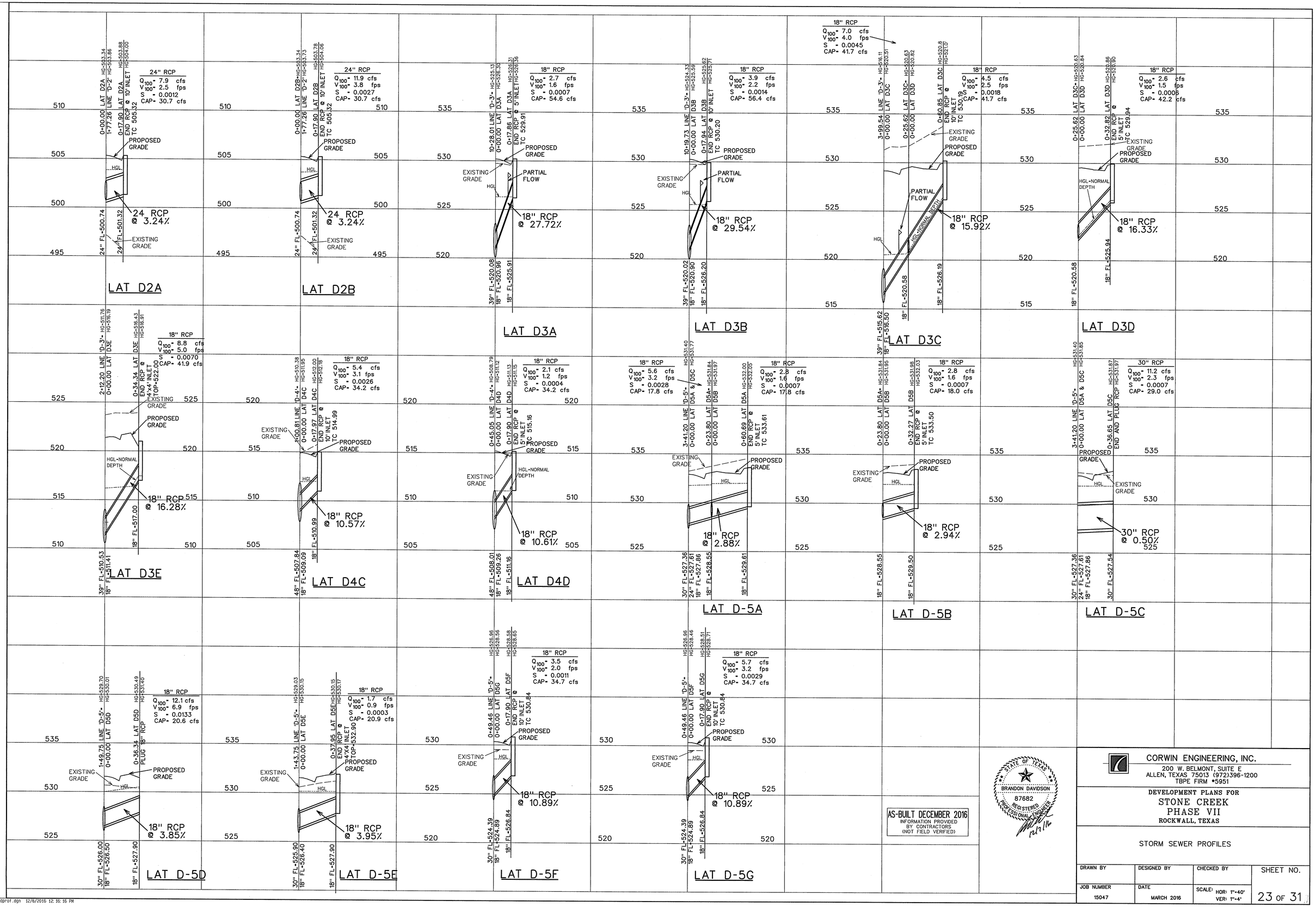
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

STORM SEWER PLAN AND PROFILE
LINE 'D-7' STA. 11+00 - END, 'D-10', 'D-12', 'D-13'

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	22 OF 31



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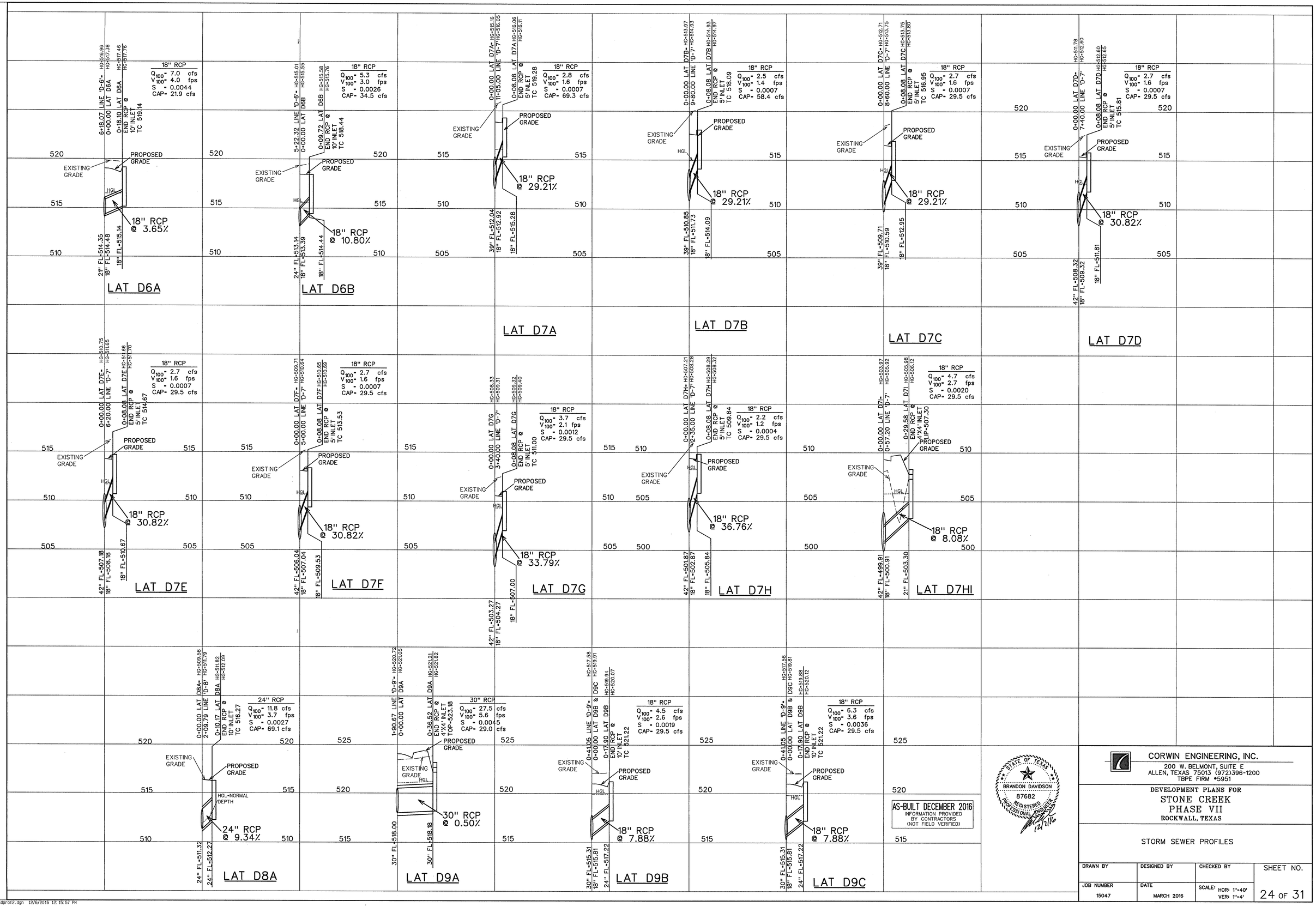


CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

STORM SEWER PROFILES

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	24 OF 31

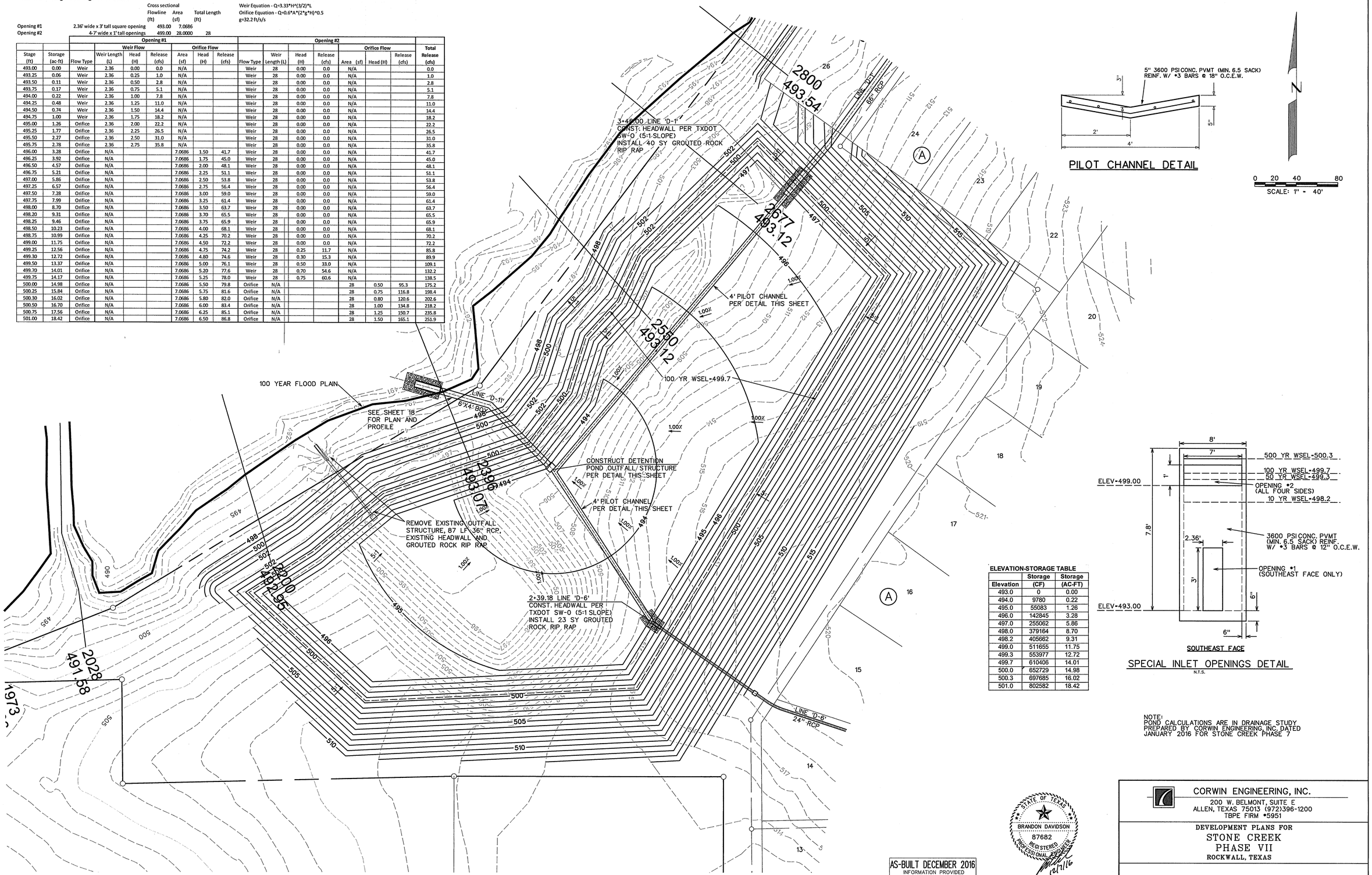
Reservior 2 Stage Discharge Calculations

Cross sectional Flowline (ft) | Area (sf) | Total Length (ft)

Weir Equation - Q=3.33*H^(3/2)*L
Orifice Equation - Q=0.6*A*(2*g*H)^0.5
g=32.2 ft/s/s

Opening #1 — 2.36' wide x 3' tall square opening — 493.00 | 7.0686
Opening #2 — 4-7' wide x 1' tall openings — 499.00 | 28.0000 | 28

		Opening #1							Opening #2							
			Weir Flow			Orifice Flow							Orifice Flow			
Stage (ft)	Storage (ac-ft)	Flow Type	Weir Length (L)	Head (H)	Release (cfs)	Area (sf)	Head (H)	Release (cfs)	Flow Type	Weir Length (L)	Head (H)	Release (cfs)	Area (sf)	Head (H)	Release (cfs)	Total Release (cfs)
493.00	0.00	Weir	2.36	0.00	0.0	N/A			Weir	28	0.00	0.0	N/A			0.0
493.25	0.06	Weir	2.36	0.25	1.0	N/A			Weir	28	0.00	0.0	N/A			1.0
493.50	0.11	Weir	2.36	0.50	2.8	N/A			Weir	28	0.00	0.0	N/A			2.8
493.75	0.17	Weir	2.36	0.75	5.1	N/A			Weir	28	0.00	0.0	N/A			5.1
494.00	0.22	Weir	2.36	1.00	7.8	N/A			Weir	28	0.00	0.0	N/A			7.8
494.25	0.48	Weir	2.36	1.25	11.0	N/A			Weir	28	0.00	0.0	N/A			11.0
494.50	0.74	Weir	2.36	1.50	14.4	N/A			Weir	28	0.00	0.0	N/A			14.4
494.75	1.00	Weir	2.36	1.75	18.2	N/A			Weir	28	0.00	0.0	N/A			18.2
495.00	1.26	Orifice	2.36	2.00	22.2	N/A			Weir	28	0.00	0.0	N/A			22.2
495.25	1.77	Orifice	2.36	2.25	26.5	N/A			Weir	28	0.00	0.0	N/A			26.5
495.50	2.27	Orifice	2.36	2.50	31.0	N/A			Weir	28	0.00	0.0	N/A			31.0
495.75	2.78	Orifice	2.36	2.75	35.8	N/A			Weir	28	0.00	0.0	N/A			35.8
496.00	3.28	Orifice	N/A			7.0686	1.50	41.7	Weir	28	0.00	0.0	N/A			41.7
496.25	3.92	Orifice	N/A			7.0686	1.75	45.0	Weir	28	0.00	0.0	N/A			45.0
496.50	4.57	Orifice	N/A			7.0686	2.00	48.1	Weir	28	0.00	0.0	N/A			48.1
496.75	5.21	Orifice	N/A			7.0686	2.25	51.1	Weir	28	0.00	0.0	N/A			51.1
497.00	5.86	Orifice	N/A			7.0686	2.50	53.8	Weir	28	0.00	0.0	N/A			53.8
497.25	6.57	Orifice	N/A			7.0686	2.75	56.4	Weir	28	0.00	0.0	N/A			56.4
497.50	7.28	Orifice	N/A			7.0686	3.00	59.0	Weir	28	0.00	0.0	N/A			59.0
497.75	7.99	Orifice	N/A			7.0686	3.25	61.4	Weir	28	0.00	0.0	N/A			61.4
498.00	8.70	Orifice	N/A			7.0686	3.50	63.7	Weir	28	0.00	0.0	N/A			63.7
498.20	9.31	Orifice	N/A			7.0686	3.70	65.5	Weir	28	0.00	0.0	N/A			65.5
498.25	9.46	Orifice	N/A			7.0686	3.75	65.9	Weir	28	0.00	0.0	N/A			65.9
498.50	10.23	Orifice	N/A			7.0686	4.00	68.1	Weir	28	0.00	0.0	N/A			68.1
498.75	10.99	Orifice	N/A			7.0686	4.25	70.2	Weir	28	0.00	0.0	N/A			70.2
499.00	11.75	Orifice	N/A			7.0686	4.50	72.2	Weir	28	0.00	0.0	N/A			72.2
499.25	12.56	Orifice	N/A			7.0686	4.75	74.2	Weir	28	0.25	11.7	N/A			85.8
499.30	12.72	Orifice	N/A			7.0686	4.80	74.6	Weir	28	0.30	15.3	N/A			89.9
499.50	13.37	Orifice	N/A			7.0686	5.00	76.1	Weir	28	0.50	33.0	N/A			109.1
499.70	14.01	Orifice	N/A			7.0686	5.20	77.6	Weir	28	0.70	54.6	N/A			132.2
499.75	14.17	Orifice	N/A			7.0686	5.25	78.0	Weir	28	0.75	60.6	N/A			138.5
500.00	14.98	Orifice	N/A			7.0686	5.50	79.8	Orifice	N/A			28	0.50	95.3	175.2
500.25	15.84	Orifice	N/A			7.0686	5.75	81.6	Orifice	N/A			28	0.75	116.8	198.4
500.30	16.02	Orifice	N/A			7.0686	5.80	82.0	Orifice	N/A			28	0.80	120.6	202.6
500.50	16.70	Orifice	N/A			7.0686	6.00	83.4	Orifice	N/A			28	1.00	134.8	218.2
500.75	17.56	Orifice	N/A			7.0686	6.25	85.1	Orifice	N/A			28	1.25	150.7	235.8
501.00	18.42	Orifice	N/A			7.0686	6.50	86.8	Orifice	N/A			28	1.50	165.1	251.9



PILOT CHANNEL DETAIL

N

0 20 40 80
SCALE: 1" = 40'

ELEVATION-STORAGE TABLE

Elevation	Storage (CF)	Storage (AC-FT)
493.0	0	0.00
494.0	9780	0.22
495.0	55083	1.26
496.0	142845	3.28
497.0	255062	5.86
498.0	379164	8.70
498.2	405662	9.31
499.0	511655	11.75
499.3	553977	12.72
499.7	610406	14.01
500.0	652729	14.98
500.3	697685	16.02
501.0	802582	18.42

SOUTHEAST FACE

SPECIAL INLET OPENINGS DETAIL
N.T.S.

NOTE:
POND CALCULATIONS ARE IN DRAINAGE STUDY PREPARED BY CORWIN ENGINEERING, INC. DATED JANUARY 2016 FOR STONE CREEK PHASE 7

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

DETENTION POND PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: HOR: 1"=40' VER: 1"=4'	25 OF 31

FULLY DEVELOPED CONDITIONS 100-Year HEC RAS RESULTS

River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width
	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)
4830	455.6	519.35	521.20	521.20	521.74	0.02	5.92	77.60	77.07
4587	455.6	513.00	519.73		519.74	0.00	0.92	540.85	138.25
4437	393.8	513.00	519.73	513.68	519.73	0.00	0.36	1108.56	220.29
4338					Culvert				
4291	393.8	510.40	513.13	513.13	513.51	0.03	5.53	92.42	112.77
4188	393.8	508.32	511.13	510.83	511.28	0.02	3.86	131.88	130.27
3967	393.8	501.10	505.64	505.54	506.12	0.03	6.23	81.91	71.62
3831	393.8	498.10	503.32		503.52	0.01	3.75	112.13	55.22
3669	393.8	496.18	501.87		502.02	0.01	3.53	133.78	71.01
3525	393.8	495.50	500.12		500.50	0.02	5.06	82.02	39.97
3310	395.2	492.48	498.20		498.33	0.01	2.94	134.35	48.27
3134	395.2	491.51	496.42	495.52	496.75	0.01	4.98	93.37	49.61
2997	458.9	492.00	495.02	493.58	495.23	0.01	3.65	125.71	84.24
2957					Culvert				
2917	458.9	491.30	493.58	493.58	494.26	0.05	6.91	72.34	73.13
2800	458.9	490.60	493.54		493.57	0.00	1.44	330.12	145.97
2677	458.9	490.30	493.12		493.26	0.01	3.71	167.40	118.58
2550	458.9	489.63	493.12		493.14	0.00	1.29	424.70	160.63
2396	478.4	489.63	493.07		493.10	0.00	1.37	376.54	226.49
2200	478.4	489.63	492.95		493.01	0.00	1.96	247.98	88.30
2028	478.4	487.50	491.58	491.52	492.57	0.05	7.99	59.95	28.07
1973	478.4	488.58	492.06		492.07	0.00	0.49	983.28	292.42
1917	478.4	489.00	491.74	491.74	492.03	0.04	6.50	137.16	243.22
1716	478.4	478.80	480.59		480.69	0.01	2.56	190.34	141.50
1622	433.0	476.05	480.45		480.47	0.00	1.46	361.78	135.01
1538	433.0	474.84	480.41		480.43	0.00	1.05	503.41	153.85
1422	433.0	471.64	480.39		480.40	0.00	0.97	627.42	156.40
1284	433.0	471.53	480.38		480.39	0.00	0.59	1038.33	235.64
1202	438.0	470.45	480.38	474.00	480.38	0.00	0.58	1269.35	292.21
1119.5					Culvert				

EXISTING CONDITIONS 100-Year HEC RAS RESULTS

River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width
	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)
4830	428.8	519.35	521.15	521.15	521.68	0.02	5.84	73.74	75.26
4587	428.8	513.00	519.73		519.74	0.00	0.86	540.77	138.23
4437	390.4	513.00	519.73	513.68	519.73	0.00	0.35	1108.31	220.27
4338	Culvert								
4291	390.4	510.40	513.12	513.12	513.50	0.03	5.52	91.84	112.62
4188	547.7	508.32	511.31	510.99	511.52	0.02	4.42	156.06	133.57
3967	547.7	501.10	506.05		506.46	0.03	6.19	121.07	97.77
3831	547.7	498.10	503.77		504.02	0.01	4.29	138.02	61.01
3669	547.7	496.18	502.39		502.56	0.01	3.73	171.72	76.22
3525	547.7	494.80	500.69		501.03	0.02	5.16	127.32	62.80
3310	547.7	492.48	498.89		499.05	0.01	3.24	170.55	56.24
3134	547.7	491.51	496.55		497.08	0.03	6.19	100.22	51.89
2997	545.5	491.25	495.22		495.35	0.01	3.14	190.17	84.83
2917	545.5	491.50	494.25		494.57	0.02	5.10	126.66	80.77
2800	545.5	490.60	494.22		494.25	0.00	1.31	433.16	154.87
2677	545.5	490.30	494.03		494.10	0.00	2.53	284.05	137.73
2550	545.5	489.63	494.02		494.04	0.00	1.17	578.82	180.89
2396	545.5	489.63	494.00		494.02	0.00	1.13	594.51	243.55
2200	545.5	489.63	493.95		493.98	0.00	1.48	463.80	268.33
2028	545.5	489.63	493.23	493.23	493.77	0.03	7.02	110.41	102.54
1973	545.5	488.58	491.95		491.95	0.00	0.54	1021.93	330.41
1917	545.5	488.58	491.62	491.62	491.91	0.02	5.57	179.31	290.75
1716	545.5	478.80	481.42		481.46	0.00	1.80	317.35	163.90
1622	463.4	476.05	481.36		481.37	0.00	1.16	492.36	151.42
1538	463.4	474.84	481.34		481.35	0.00	0.88	656.10	175.33
1422	463.4	471.64	481.33		481.33	0.00	0.84	780.49	170.17
1284	463.4	471.53	481.32		481.32	0.00	0.52	1269.59	256.87
1202	469.7	470.45	481.32	474.08	481.32	0.00	0.50	1552.52	310.40
1119.5	Culvert								

NOTES:

1. CROSS SECTION ELEVATION DATA WAS OBTAINED BY A TOPOGRAPHIC SURVEY OF THE SITE PERFORMED BY HINE-THOMPSON LAND SURVEYING IN OCTOBER 2012 AND ELEVATIONS ARE TIED TO CITY OF ROCKWALL CONTROL MONUMENTS 10 AND 16 WHICH ARE BASED ON NAVD 88

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/7/16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

FLOOD PLAIN WORKMAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=100'	26 OF 31

...\dgn\15047workmap.dgn 12/6/2016 12:15:04 PM

SCALE: 1" = 50'

NOTE:

RETAINING WALLS 3' IN HEIGHT AND OVER NEED A ENGINEERED SEALED PLAN. (PLANS TO BE SUBMITTED PRIOR TO ENGINEERING APPROVAL)

Note:

Each lot will need a detailed grading plan with building permit submittal. This is a general grading plan for site work only.

LEGEND

SPOT ELEVATION 706.2

EXIST. CONTOUR —700—

PROP. CONTOUR —704—

RETAINING WALL

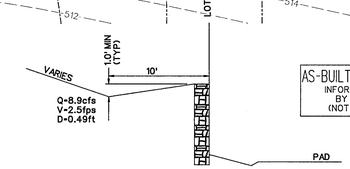
Ⓧ DRIVEWAY LOCATION SO MAXIMUM 14% SLOPE OR UNDER IS MAINTAINED, OR AS TO AVOID INLET OR MIN. DISTANCE FROM INTERSECTION (DRIVEWAY MAY BE PLACED AT ALTERNATE LOCATION WITH USE OF A DROP GARAGE AS LONG AS MAXIMUM SLOPE IS 14% OR UNDER)

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.= 525.31

NOTES:

1. Finish Floor Elevation to be 0.70 Feet above Finished Pad.(FP)
2. Additional Erosion Control to be installed in Parkways as determined by the City Inspector.
3. Finished Pad Elevations are within ± 0.3 Feet.
4. All fill compacted to min 95% std. density using sheeps foot roller.
5. All portions of the wall to be on one lot. Do not install on property line or in easements or right of way.



CROSS SECTION
N.T.S.
A-A

⚠ ADDED TRAIL AND DETAIL - 09/22/2016

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

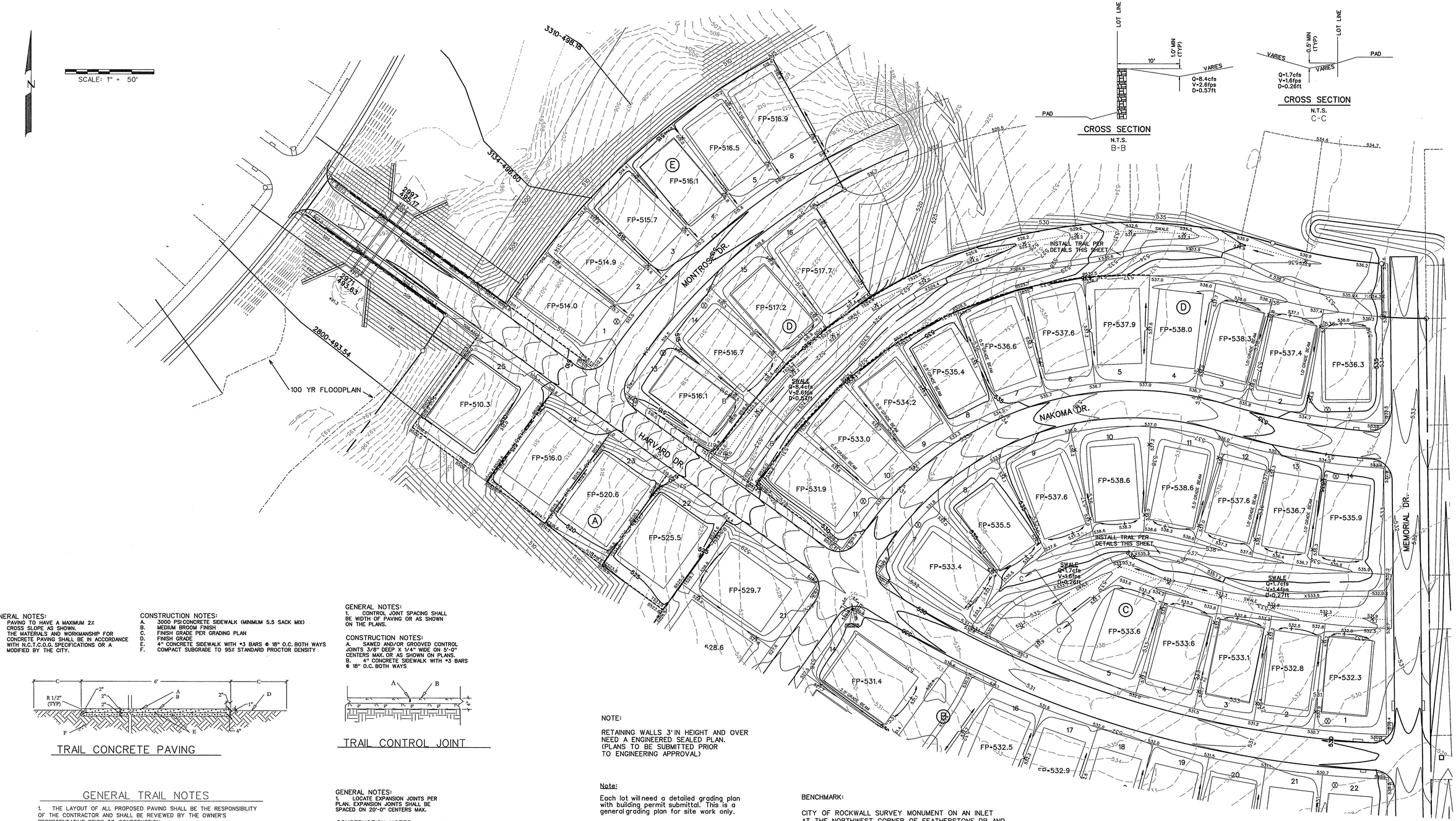
STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK PHASE VII
ROCKWALL, TEXAS

GRADING PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=50'	27 OF 31



LOT LINE
10'
1.0' MIN (TYP)
VARIES
Q=8.4cfs
V=2.6fps
D=0.57ft
PAD

CROSS SECTION
N.T.S.
B-B

LOT LINE
0.5' MIN (TYP)
VARIES
Q=1.7cfs
V=1.6fps
D=0.26ft
PAD

CROSS SECTION
N.T.S.
C-C

GENERAL NOTES:
1. PAVING TO HAVE A MAXIMUM 2% CROSS SLOPE AS SHOWN.
2. THE MATERIALS AND WORKMANSHIP FOR CONCRETE PAVING SHALL BE IN ACCORDANCE WITH N.C.T.C.O.G. SPECIFICATIONS OR A MODIFIED BY THE CITY.

CONSTRUCTION NOTES:
A. 3000 PSI CONCRETE SIDEWALK (MINIMUM 5.5 SACK MIX)
B. MEDIUM BROOM FINISH
C. FINISH GRADE PER GRADING PLAN
D. FINISH GRADE
E. 4" CONCRETE SIDEWALK WITH #3 BARS @ 18" O.C. BOTH WAYS
F. COMPACT SUBGRADE TO 95% STANDARD PROCTOR DENSITY

TRAIL CONCRETE PAVING

GENERAL NOTES:
1. CONTROL JOINT SPACING SHALL BE WIDTH OF PAVING OR AS SHOWN ON THE PLANS.

CONSTRUCTION NOTES:
A. SAWED AND/OR GROOVED CONTROL JOINTS 3/8" DEEP X 1/4" WIDE ON 5'-0" CENTERS MAX. OR AS SHOWN ON PLANS.
B. 4" CONCRETE SIDEWALK WITH #3 BARS @ 18" O.C. BOTH WAYS

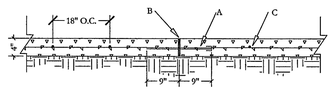
TRAIL CONTROL JOINT

GENERAL TRAIL NOTES

1. THE LAYOUT OF ALL PROPOSED PAVING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. ALL PAVING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS SHOWN HEREIN.
3. THE SUB GRADE BENEATH ALL PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4. THE EDGES OF ALL FINISHED PAVING AND PLAYGROUND EDGES SHALL BE SMOOTH, GRACEFUL CURVILINEAR OR STRAIGHTFORMS WITH NO INTERRUPTIONS SUCH AS CHORDS, WAVES, JOGS, OR MISSED TANGENTS. ANY PAVEMENT WITH SUCH INTERRUPTIONS SHALL BE SUBJECT TO REPLACEMENT AT NO COST TO THE OWNER.
5. CONCRETE SHALL NOT BE POURED UNTIL THE OWNER'S REPRESENTATIVE HAS INSPECTED THE FORMS AND REINFORCING. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AT LEAST 48 HOURS IN ADVANCE OF ALL CONCRETE POURS.
6. PROVIDE AN UNDERCUT HEADER WHEREVER PROPOSED CONCRETE PAVING IS TO ABUT EXISTING CONCRETE PAVING.
7. ALL EXPOSED VERTICAL CONCRETE SURFACES SHALL HAVE A HAND RUBBED FINISH WITH NO HONEYCOMBS OR VOIDS.
8. ALL CONSTRUCTION SHALL CONFORM WITH THE CITY OF ROCKWALL CONSTRUCTION STANDARDS AND DETAILS.

GENERAL NOTES:
1. LOCATE EXPANSION JOINTS PER PLAN. EXPANSION JOINTS SHALL BE SPACED ON 20'-0" CENTERS MAX.

CONSTRUCTION NOTES:
A. #4 SMOOTH DOWEL 18" LONG EACH W/ CAP, LUBRICATED, TYPICAL DOWEL SPACING SHALL BE 12" O.C.
B. FILL EXPANSION JOINTS WITH FULL DEPTH PREMOLDED BITUMINOUS EXPANSION JOINT FILLER
C. 4" CONCRETE SIDEWALK WITH #3 BARS @ 18" O.C. BOTH WAYS



DOWELED EXPANSION JOINT

NOTE:

RETAINING WALLS 3' IN HEIGHT AND OVER NEED A ENGINEERED SEALED PLAN. (PLANS TO BE SUBMITTED PRIOR TO ENGINEERING APPROVAL)

Note:

Each lot will need a detailed grading plan with building permit submittal. This is a general grading plan for site work only.

LEGEND

SPOT ELEVATION 706.2
EXIST. CONTOUR — 700 —
PROP. CONTOUR —704—
RETAINING WALL -------

Ⓧ DRIVEWAY LOCATION SO MAXIMUM 14% SLOPE OR UNDER IS MAINTAINED, OR AS TO AVOID INLET OR MIN. DISTANCE FROM INTERSECTION
(DRIVEWAY MAY BE PLACED AT ALTERNATE LOCATION WITH USE OF A DROP GARAGE AS LONG AS MAXIMUM SLOPE IS 14% OR UNDER)

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.- 525.31

NOTES:

1. Finish Floor Elevation to be 0.70 Feet above Finished Pad.(FP)
2. Additional Erosion Control to be installed in Parkways as determined by the City Inspector.
3. Finished Pad Elevations are within ± 0.3 Feet.
4. All fill compacted to min 95% std. density using sheeps foot roller.
5. All portions of the wall to be on one lot. Do not install on property line or in easements or right of way.

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

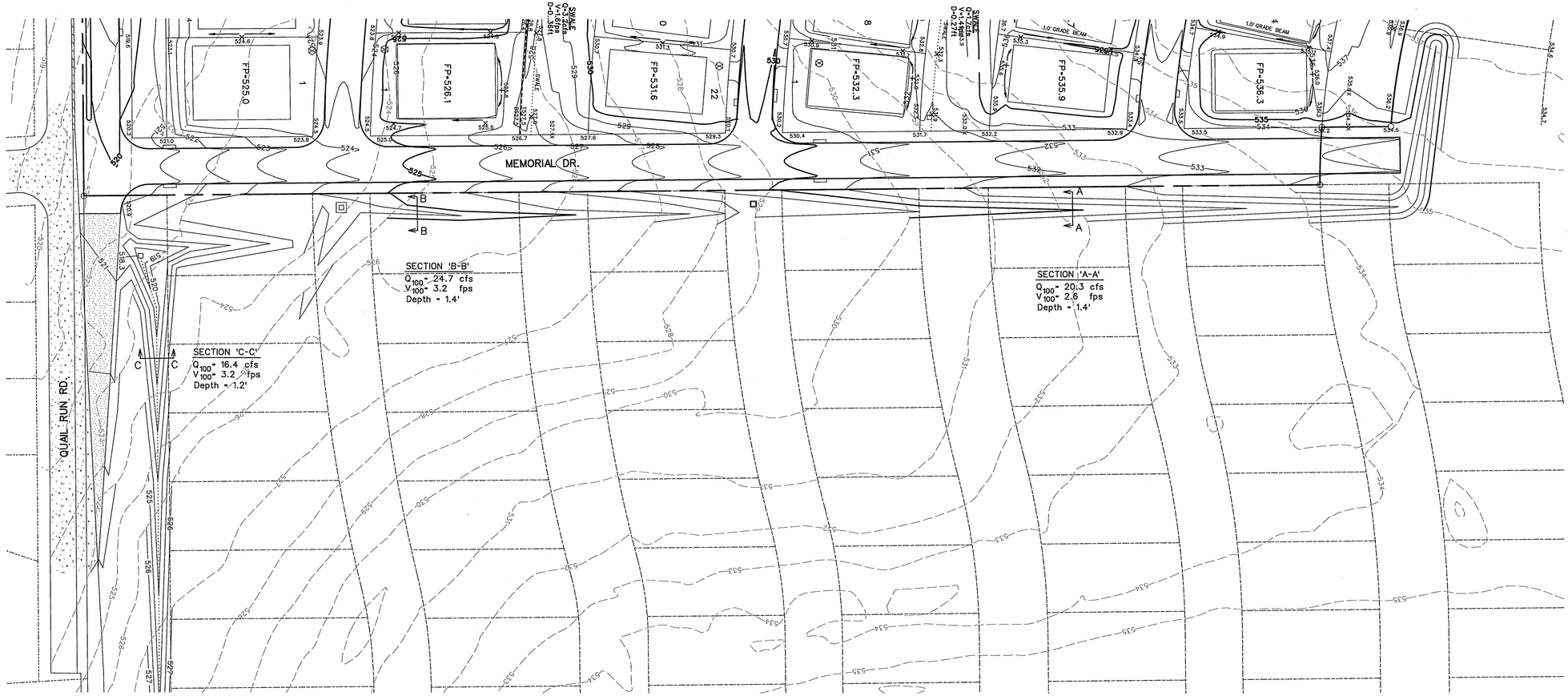
⚠ ADDED TRAIL AND DETAIL - 09/22/2016

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

GRADING PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=50'	28 OF 31



NOTE:

RETAINING WALLS 3' IN HEIGHT AND OVER NEED A ENGINEERED SEALED PLAN. (PLANS TO BE SUBMITTED PRIOR TO ENGINEERING APPROVAL)

Note:

Each lot will need a detailed grading plan with building permit submittal. This is a general grading plan for site work only.

LEGEND

SPOT ELEVATION 706.2

EXIST. CONTOUR —700—

PROP. CONTOUR —704—

RETAINING WALL

BENCHMARK:

CITY OF ROCKWALL SURVEY MONUMENT ON AN INLET AT THE NORTHWEST CORNER OF FEATHERSTONE DR. AND HARVARD DR.
ELEV.- 525.31

⊗ DRIVEWAY LOCATION SO MAXIMUM 14% SLOPE OR UNDER IS MAINTAINED, OR AS TO AVOID INLET OR MIN. DISTANCE FROM INTERSECTION
(DRIVEWAY MAY BE PLACED AT ALTERNATE LOCATION WITH USE OF A DROP GARAGE AS LONG AS MAXIMUM SLOPE IS 14% OR UNDER)

NOTES:

1. Finish Floor Elevation to be 0.70 Feet above Finished Pad.(FP)
2. Additional Erosion Control to be installed in Parkways as determined by the City Inspector.
3. Finished Pad Elevations are within ± 0.3 Feet.
4. All fill compacted to min 95% std. density using sheeps foot roller.
5. All portions of the wall to be on one lot. Do not install on property line or in easements or right of way.

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED PROFESSIONAL ENGINEER
12-7-16

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

GRADING PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=50'	28 OF 31

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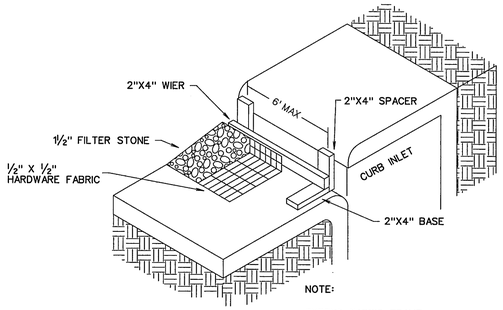
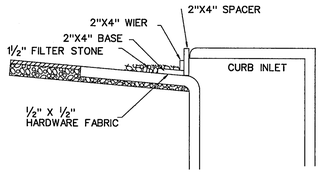
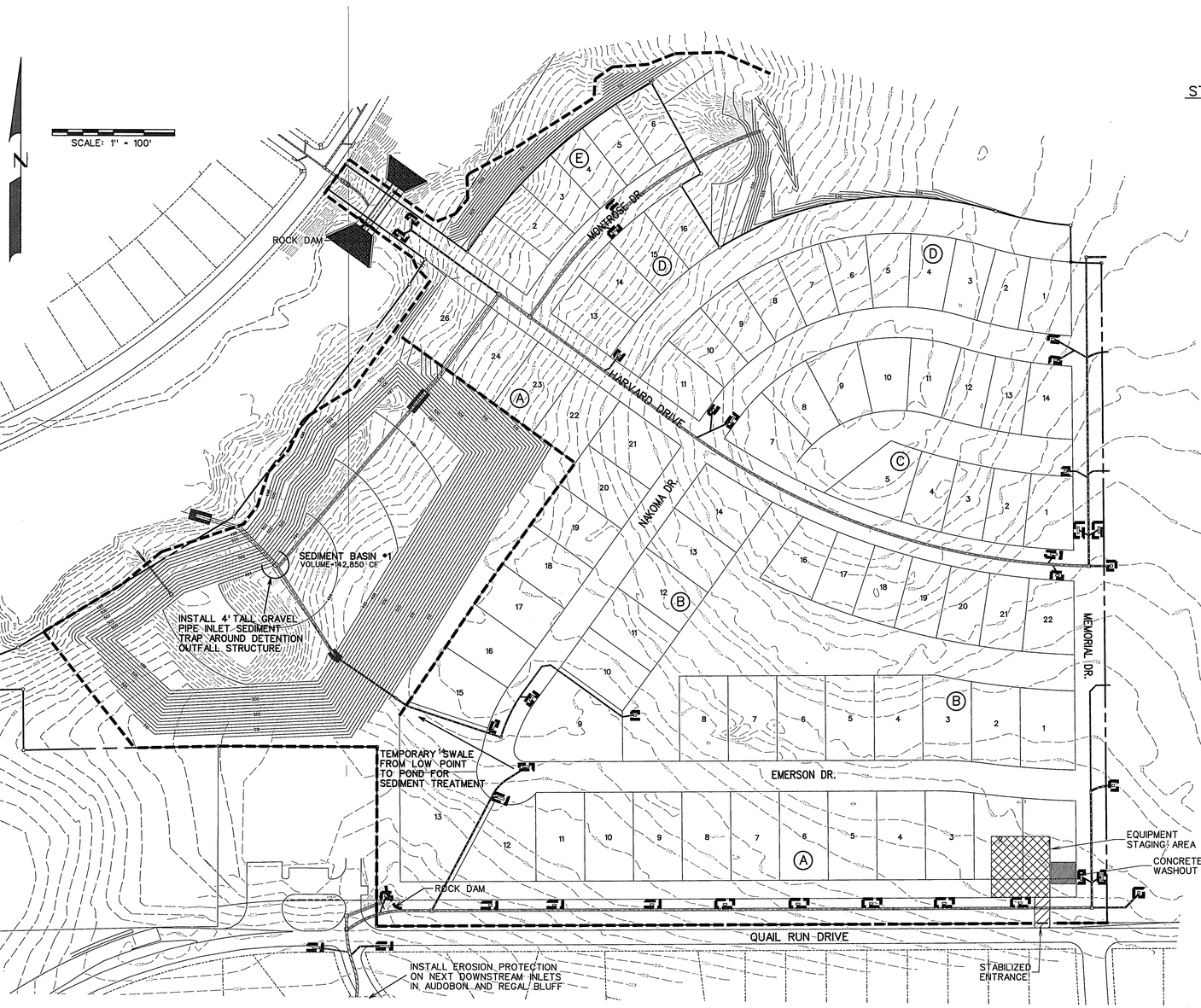
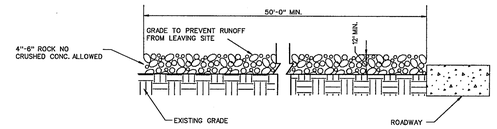




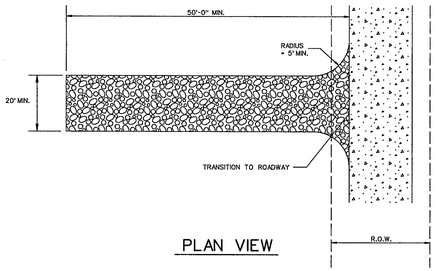
INLET SECTION

TYPE B CURB INLET PROTECTION





PROFILE

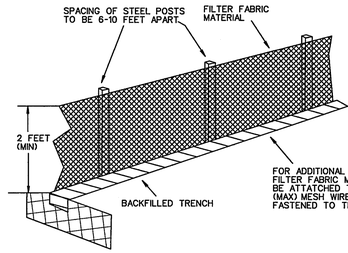


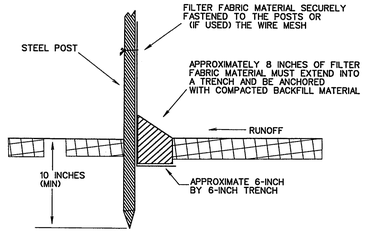
PLAN VIEW

STABILIZED ENTRANCE DETAIL

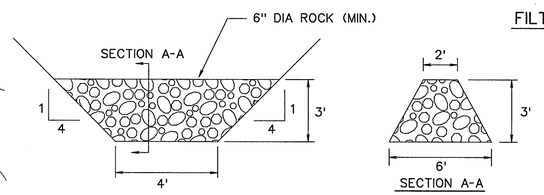
CONSTRUCTION SEQUENCE

1. GRADING CONTRACTOR TO INSTALL TEMPORARY STABILIZED ENTRANCE.
2. INSTALL SILT FENCE AS SHOWN, (TS-600 POLY FELT) PER C.O.G. SPECIFICATIONS.
3. PERFORM GRADING AND UTILITY CONSTRUCTION.
4. AFTER THE INLET BOTTOMS ARE CONSTRUCTED, THE INLETS SHALL BE FILLED WITH STONE AND COVERED WITH A FILTER FABRIC (TS-600 POLY FELT OR EQUIVALENT) BY UTILITY CONTRACTOR.
5. PRIOR TO CITY RELEASING PAVING, SOD OR SEEDED CURLEX SHALL BE INSTALLED ON SIDES AND BOTTOM OF ALL DETENTION PONDS.
6. AFTER PAVING AND COMPLETION OF INLETS, INLET FILTERS SHALL BE INSTALLED IN ALL INLETS AND MAINTAINED UNTIL RE-VEGETATION HAS BEEN COMPLETED BY PAVING CONTRACTOR.
7. SILT FENCE SHALL REMAIN IN PLACE UNTIL RE-VEGETATION HAS BEEN COMPLETED.
8. PAVING CONTRACTOR SHALL REMOVE TEMPORARY STABILIZED ENTRANCE.
9. PRIOR TO CITY ACCEPTANCE THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MUD OR SILT WHICH COLLECTS ON THE EXISTING AND NEW PAVEMENT.
10. PRIOR TO CITY ACCEPTANCE 75-80% OF ALL DISTURBED AREA SHALL HAVE A MIN. 1" TALL GRASS ESTABLISHED
11. 75-80% OF ALL DISTURBED AREA TO HAVE 1" HIGH GRASS ESTABLISHED PRIOR TO ENGINEERING ACCEPTANCE.
12. ALL BAR DITCHES TO BE ANCHORED, SEEDED & CURLEXED PRIOR TO ACCEPTANCE OF GRASS ISN'T ESTABLISHED.





FILTER FABRIC FENCE DETAIL



ROCK DAM
N.T.S.

NOTE:

DETENTION POND SHALL BE INSTALLED PER PLAN (INCLUDING OUTFALL) WITH BOTTOM AND SIDES STABILIZED WITH ANCHORED CURLEX OR SOD PRIOR TO ANY PAVING.

TOTAL SITE 37.8 AC.
DISTURBED AREA 41.0 AC.

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

LEGEND

SILT FENCE (BEFORE CONSTRUCTION) ----------

INLET PROTECTION

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

EROSION CONTROL PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=100'	29 OF 31

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The developer shall arrange for the installation of all pavement striping, regulatory, warning and guide signs, including posts, as shown on the plans or as directed by the City. Street name signs shall be installed at each intersection. Examples of regulatory, warning, information and guide signs are as follows:

-Regulatory signs shall include, but are not limited to, STOP, ALL-WAY, YIELD, KEEP RIGHT and speed limit signs.

-Warning signs shall include, but are not limited to, DEAD END, NO OUTLET, DIVIDED ROAD, DIP, and PAVEMENT ENDS.

-Guide signals shall include, but are not limited to, street name signs, DETOUR, direction arrow and advance arrow.

Regulatory signs should be used only where justified by engineering judgment or study. All signage plans shall be reviewed and approved by the City of Rockwall Engineering Department and be designed in accordance with the principles described in the current TMUTCD,

-A detailed street and regulatory signage plan is to be submitted to the City of Rockwall Engineering Department. All signs shall be shown in the engineering plans for review and approval. The signage plan shall be shown on a separate signage & pavement marking layout sheet or as a part of the plan & profile sheet. The plan shall identify the specific sign designation, size and location for each sign. Sign standards shall also be included in the engineering plans.

-All signage installed shall comply with the current" Texas Manual on Uniform Traffic Control Devices" and the" Standard Highway Sign Designs for Texas." The sign layout drawings shall show the color and dimensions of all sign face legend components including background color, legend color, borders, symbols, letter size and style.

-The developer shall be responsible for furnishing and installing all regulatory signage, warning signage and street name signage along with all necessary sign mounts in accordance with the approved engineering plans. A sample production sign shall be submitted to the Traffic Signs & Pavement Markings Supervisor for review and approval. The sample shall be directed to the City of Rockwall Service Center located at 1600 Airport Road, Rockwall Texas 75087. The sample sign must be submitted at least 10 days prior to the scheduled installation date.

-For a street with a cul-de-sac end, a standard W 14-2a shall be mounted over the street name blade, if the cul-de-sac is not clearly visible from the adjoining roadway, or is located in excess of 400 linear feet from the adjoining roadway.

-Sign posts shall be 2⅜ O.D. galvanized steel tube sign post with a galvanized finish.

-Sign clamps and brackets shall be high strength aluminum.

Street Name Blades

-Street name sign blades shall be double-sided with rounded corners.

-Street Name Blades shall be nine-inch (9") tall flat aluminum. The blades shall be 0.080 inches thick and be a minimum of 36" long.

-The lettering for the street signs shall be 3M Scotch lite Series 3930 high intensity prismatic material sheeting for street, regulatory and warning signs. and shall be high intensity diamond grade type III prismatic. The street sign background shall be green and the legend shall be white.

-The street sign blade must incorporate the current City of Rockwall logo. The logo shall consist of white 3M Scotch lite Series 3930 high intensity prismatic material (product code 3930).

- Block Numbers are required on all street name blades and shall be located on the top right corner of the street blade.

-The lettering for the street blades shall be composed of a combination of lower-case letters with initial upper-case letters. The Clearview TCAD-1W font shall be used. The lettering shall be composed of initial upper-case letters of at least 6 inches in height and lower case letters of at least 4.5 inches in height. For supplementary lettering to indicate the type of street (such as Street, Avenue or Road) shall be composed of initial upper-case letters at least 3-inches in height and lower-case letters at least 2.25 inches in height. Abbreviations may be used (for example St., Ave., or Rd) except the street name itself. The supplementary lettering shall be located at the lower right corner of the street blade, under the block number.

-The street blade sign shall consist of green 3M Scotchlite Series 3930 high intensity prismatic material background - (product code 3937). The lettering shall consist of white 3M Scotchlite Series 3930 high intensity prismatic material (product code - 3930). The background sheeting shall be white 3M 3990 high intensity prismatic material. The background material shall be' applied to the full width and height of the sign blank leaving no metal exposed. The background material shall be one continuous piece of material. Patching of background material is not allowed and any sign with patching material of any type will be rejected by the City.

- Alternative Option:
As an alternative, the foreground color may be green transparent Scotch lite ElectroCut1177 film (E.C. film). Lettering shall be cut out and removed producing a single continuous piece of green transparent film material.

All street and regulatory signage shall be installed, inspected and approved, prior to final acceptance of the project. This inspection typically takes place as part of the engineering department's final walkover. Any sign related issue/issues will be noted on the projects final punch list.

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

LEGEND
- STREET LIGHT
- STOP SIGN
- STREET NAME BLADE
- SPEED LIMIT SIGN (30 MPH)

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DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

SIGN AND LIGHT PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=100'	30 OF 31

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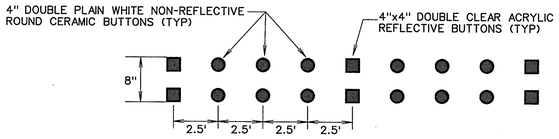
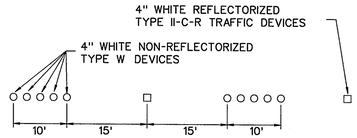
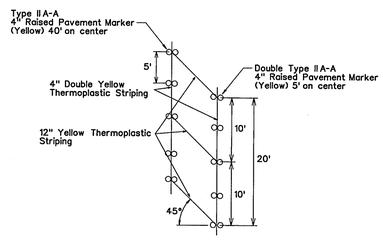


BUTTON TURN BAY LINE MARKING DETAIL
N.T.S



TYPICAL LANE-LINE TRAFFIC BUTTON DETAIL
NTS



CHEVRON STRIPING DETAIL
NTS

AS-BUILT DECEMBER 2016
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

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DEVELOPMENT PLANS FOR
STONE CREEK
PHASE VII
ROCKWALL, TEXAS

QUAIL RUN TRAFFIC SIGNAGE PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 15047	DATE MARCH 2016	SCALE: 1"=100'	31 OF 31

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